THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

$2.00 PER YEAR. ESTABLISHED 1878. 10c. SINGLE COPY.

VOL. XVII. CLEVELAND, OHIO, JULY 12, 1894. NO. 28

LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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FINANCE COMMITTEE MEETING.

The regular semi-monthly meeting of the finance committee of the Lake Carriers' Association was held at the office of the president, Capt. James Corrigan, on Tuesday afternoon. The report of the committee appointed to have the Vidal shoal in St. Mary's river property marked was presented and approved and the committee discharged. The buoys in the St. Lawrence river are misplaced and Capt. Frank Owen, superintendent of the Ogdensburg Transit Co., in a letter to Capt. Corrigan says buoys are misleading and requested that they be properly placed. Capt. McKay was instructed to write Commander Green, inspector of the Tenth Light-House district, about the matter. There was no other business of importance transacted, and the committee adjourned.

THE WAHNAPITAE CASE DECIDED.

The United States Circuit Court of Appeals has affirmed the decision of Judge Swan, of Detroit, rendered nearly two years ago, in the case of the Loveland Transportation Co. against the steamer John M. Nichol. The claim was brought up for the loss of the barge Wahnapitae and her cargo of lumber, valued at $60,000. The barge was a huge, unwieldy craft, built for carrying timber, railroad ties or lumber, and when on her way down Lake Erie in tow of the Nichol, the weather became stormy and the barge sprung a leak. In response to signals from the barge, the Nichol undertook to tow her into Cleveland, and when near the entrance to that harbor the Nichol was obliged to let go the tow line, the result being that the barge and cargo became a total loss through foundering directly in the approach of that port. The libelants claimed that the Nichol should have hung on to the Wahnapitae and could have saved her. It was shown, however, that the barge was unmanageable and that the Nichol, for her own safety, was obliged to cast her off. Judge Swan decided that the Nichol was not at fault. This final decision of the Circuit Court of Appeals is of more than ordinary interest to vessel owners and masters, as it goes to prove in a measure the duty of a steamer to her consort or the vessel being towed.

HIGH SPEED TORPEDO DESTROYERS.

The trial of the Hornet, the second of the torpedo boat destroyers built for the British Government by Yarrow & Co., took place early last month, and the vessel exceeded the highest expectations in the matter of speed. She is a sister ship to the Havock, and is fitted with Yarrow water tube boilers. The speed of the Hornet was demonstrated to be 27¾ knots per hour against 26½ knots for the Havock. The Hornet is 180 feet long by 18 feet 6 inches broad at the water line. She is built of steel, and divided by ten water-tight bulkheads into eleven compartments. The builders claim for the Hornet that she can steam 10 knots an hour on a consumption of 3½ cwts. of coal, and that by taking extra quantities in the stokeholds and on deck in addition to the coal in the bunkers, she can steam between four and five thousand miles.

The Daring, built by Messrs. Thornycroft, in her trials on the 23d of last month at the mouth of the Thames, attained a speed of over 29 knots, thus breaking all previous records in the speed of war ships. To Messrs. Thornycroft, of Chiswick, therefore, belongs the honor of being the constructors of the fastest boat in the world. The Daring, a torpedo boat destroyer, on her trial made a speed of over 29 knots an hour. This wonderful craft has a total measurement of 185 feet with 19 feet beam and 7 feet draught when fully loaded. She is fitted with water-tube boilers, with the latest improvements that experience has suggested. On the measured mile, under forced draught, three runs were made, with the following results:

	Time	Speed	Revolut'ns per min.
Against tide.....	2.76	28.214	353
With tide.....	2. 6	28.571	385.7
Against tide.....	2. 3	29.268	395.1

The mean speed works out at 29 knots. The engines developed a maximum of 4,800 i. h. p., though the contract is only for 3,500.

TRIAL TRIP OF U. S. S. MINNEAPOLIS.

The Cramps claim that the Minneapolis, when she left her wharf on Monday was nearer completion than any ship that has ever gone on an official trial trip. The speed trial will take place over a course a fraction less than 44 knots long. The ship is guaranteed to accomplish a sustained speed of 21 knots an hour and it is believed that she will prove a world-beater in her class. Her contract price was $2,690,000, with a premium of $50,000 for each quarter knot obtained in addition to the 21 knots.

The cruiser Minneapolis, sister ship of the Columbia, cleared on Monday for Boston from Cramps' shipyard. On Thursday the cruiser will start for a preliminary run over the official course laid out between Cape Ann and Cape Porpoise, off the Massachusetts coast. Saturday is the day set for the eventful speed test. That the Minneapolis will prove a world beater in her class no person who has had anything to do with her construction entertains the slightest doubt. In all essential details she is the exact counterpart of the Columbia, with the exception that additional grate space will give her added steam power, and consequently, it is believed, greater speed. In addition the pitch of the screws has been altered. The construction of the Minneapolis was authorized by Act of Congress approved March 2, 1891, and the contract with her builders was signed on August 31 of that year, the stipulated price being $2,690,000. The vessel is 412 feet long, 58 feet beam, 22 feet 6½ inches normal draught, and displaces 7,350 tons. Her armament is comparatively light. She is designed to, if necessary, to overtake and destroy any commercial ship afloat and little attention has been paid to the question of armor, which is of paramount importance on floating forts of the Indiana class. The Minneapolis can take care of herself in a skirmish, however, being provided with one eight-inch 40-caliber breech-loading rifle; two six-inch rapid-fire breech loaders and eight four-inch rapid fire guns. In addition she has a secondary battery of eight six-pounder and four one-pounder rapid-fire guns and four gatlings.

NEW TONNAGE.

The lake built vessels to which official numbers were granted by the Bureau of Navigation, Treasury Department, during the week ending June 30 are as follows: Steam—Adella Shores, 703 tons, Detroit, built at Gibraltar, Mich.; C. L. Boynton, 103 tons, Port Huron, Mich., Kearsarge, 3093 tons, Cleveland, O., built at Chicago, Ill. Unrigged—J. R. Earnest, 50 tons, Toledo, O., built at Berlin, O.

MARINE LEGISLATION.

WASHINGTON, D. C.—Mr. Mallory, from the committee on interstate commerce, has reported to the House the bill by W. C. P. Breckenridge to require persons who make their residence on vessels on inland waters to have license for so doing. The bill is amended so as to exclude the Great Lakes and apply to the Ohio and Mississippi rivers only.

Mr. Weadock, of Michigan, has introduced a bill to amend rule 12 of section 4,233 Revised Statutes, by adding the following clause: "Provided that row boats used by vessel and marine reporters on the Detroit river shall not be required to carry lights."

The following changes in the river and harbor bill were made on Monday and agreed upon: Ohio—Cleveland harbor, increased from $40,000 to $50,000; Toledo harbor, increased from $60,000 to $75,000. The committee, without stipulating any amount, ordered a survey of the Miami and Erie canals for the purpose of establishing a ship canal between the lakes and the Ohio river.

NEWS AROUND THE LAKES.

CHICAGO, ILL.

Special Correspondence to The Marine Record.

Capt. Thomas Beggs has been appointed master of the steamer Egyptian.

Capt. T. Johnson has purchased an interest in the schooner Ann Maria and will sail her.

Capt. C. Gunderson's schooner Gracie M. Tiler left here Tuesday evening with the Norwegian "Viking" in tow, bound for Racine, Wis.

The steamer Susie Chipman arrived from Sheboygan, Wis., Monday morning, with 400 tons of soft coal, consigned to the American Hydraulic Dredging Co., who are working on the big canal.

The steamer John H. Glidden and consort H. W. Sage with 3200 tons of Black Horse Coal for the O. S. Richarnson Fueling Co. arrived here, Monday morning from Cleveland. The coal is much in request and was disposed of nearly as fast as unloaded.

H. B. Burger, shipbuilder Manitowoc, was in Chicago Saturday. He says business is quiet in Manitowoc. He had the schooner Lotus of Chicago in dry dock for a piece of new keel aft and calking. The passenger steamer Liberty is receiving new upper works and promenade deck and cabin.

At Miller Brothers' shipyard, the schooner Waukesha, was in dock for calking butts and repairs to rudder, the tug Crawford for a new shoe and repairs to rudder, the steamer J. D. Marshall for a new wheel, the steamer Robert Holland for repairs to her wheel, the schooner City of Sheboygan for some new plank on her starboard side, the tug Commodore for a new wheel.

The Marinette Barge Company's steamer J. C. Perret was towed down, Tuesday morning, from the company's slip in the South Branch to an anchorage in the outer harbor. The owners of many lumber and cedar carrying vessels have given orders for them to cast anchor in the outer harbor on arrival, and not go up the river until the strike trouble is settled, as they are in fear for their safety.

The schooner Loomie A. Burton, which collided with Adam's Street bridge last week and carried away her fore and mainmasts and mizen top mast, had a survey made on her, Friday and the damage was estimated at about $1,000. The city will have to pay the bill as the bridge tender, after he had rung the bell and lowered the ball, could not open the bridge, in consequence of the pin being out of the lever of the throttle. The captain of the tug towing the Burton tried to avert the accident and ran back alongside of her, but was too late to stop her. Captain Christianson and the mate of the Burton jumped into the river to escape from the falling spars, they were picked up by the crew of the tug.

P. H. Fleming & Co. chartered the steamer Chauncey Hurlbut for 40,000 bushels of wheat to Kingston at 2¼ cents. Elphicke & Co. chartered the steamer Iron Age for 55,000 bushels of corn and her consort, Iron City, for 50,000 bushels of corn to Buffalo at 1 cent and the steamer Rhoda Emily for 35,000 bushels of wheat to Kingston at 2½ cents. Capt. John Prindiville chartered the steamer C. H. Greene for wheat to Milwaukee at 1 cent; steamer C. A. Street and consorts Lozen and Attwater for lumber, Ashland to Chicago, at $1.75 per M feet; steamer C. H. Greene for rye to Toledo at 3½ cents. The line boats are taking shipments of any quantity they can obtain, the steamer Clyde takes 27,000 bushels of wheat to Buffalo her carrying capacity is about 65,000. The steamer F. H. Prince, of the Ogdensburg Line, akes 40,000 bushels of corn to Oswego.

The schooner Loomie A. Burton left here Saturday for Milwaukee in tow of the steamer Geo. C. Markham. She will receive new spars, etc., at the Milwaukee Dry Dock Co.'s shipyard.

WILLIAMS.

BUFFALO, N. Y.

Special Correspondence to The Marine Record.

The Lehigh Valley Line has determined to lay up all its wooden boats as they come in until business picks up.

A number of vessels have laid up here this week and will not look for a cargo until the freight situation improves.

The Northwest is reported as having 194 passengers on her last down trip and on her present passage 300 are booked from Buffalo, Cleveland and Detroit. She may make one or two more ports of call after her machinery gets down to steady work.

Surveys held on the steamer Forbes and consort McLaughlin to assess the damage done after grounding in Mud Lake on June 25th make the former loss $177.50 and the latter $359, this outlay was chiefly for tow posts carried away and lines parted.

There has been some disposition to treat the matter of clearing their vessels on leaving port as a matter of small account on the part of some vessel masters. They held that to forget to clear was excuse enough on some occasions. A captain lately came up from Tonawanda without a clearance and wanted one here. As he had come from the Niagara district, it was refused and he had to go back by rail and get one before being allowed to proceed.

Coal shipments for last week were 87,345 tons. No material change in the moderate activity of the past few weeks is anticipated. The effect of the strike is indirect as yet and not many vessels are lying up, although there is no demand for prompt dispatch and line boats are being handled leisurely. Soft coal for fuel has been plenty all week and at the normal price of $2.75 per ton. Vessels arriving for the past few days are bringing in mostly light loads. The Lehigh Valley line has laid up the Oceanica and the H. E. and R. A. Packers.

Mr. and Mrs. Montgomery, daughter and son-in-law of Capt. Reardon, an old time and well-known lake shipmaster, arrived here this week on their way home to Chicago from their wedding tour. They had tickets through on the Lake Shore, but were met with the information that they could not reach Chicago over that line on account of the strike. They were in rather a plight, as it was important that they should reach home with as little delay as possible. Marine acquaintances of their father solved the problem for them by arranging so that they could be carried on the Washburn to Milwaukee and from there either lake or rail is in operation.

Smith, Davis & Co., the marine insurance agents, are cancelling insurance on vessels which are lying up. The following list of boats on which the firm has already suspended all their insurance except their fire risks, is evidence of the rate at which the vessels are going into the ordinary: Steamers: John Plankinton, City of Rome, Schlessinger, Wolf, George L. Colwell, Egyptian, Medora, Uganda, Kittie M. Forbes, F. E. Spinner, O. T. Flint, W. R. Stafford, Oscoda John M. Nicoll and Samuel F. Hodges; schooners: McWilliams, Franklin, Mabel Wilson, Mary McLachlan, D. P. Dobbins and Michigan. "This is only a small basis to figure on," said a representative of the above-named firm, "because there are a great many boats which have carried no insurance at all this year. At a rough estimate I should say that there was over $2,000,000 worth of vessel property on the lakes this year on which there has not been placed a dollar of insurance."

CLEVELAND. O.

Special Correspondence to The Marine Record.

The Cleveland Yacht Club will hold a regatta on Saturday next.

The Collector of Customs has imposed a fine of $500 on a tug for carrying passengers. She was chartered by a railroad company at Lorain.

The steel steamer Maruba, of the Minnesota Line, bound down, struck the north pier at the "Soo" Canal on Tuesday and received some damage. Temporary repairs were made and she proceeded on in the afternoon.

The McMyler Car-dumping Machine Co., of Cleveland, O., was incorporated this week with a capital stock of $100.000. The incorporators are James Pickand, John McMyler, C. A. Judson, W. P. Murray and A. C. Dustin.

C. C. Johnston, special agent of the Ohio Bureau of Labor statistics is at this port endeavouring to gather statistical matter relative to the employment and duties of lake seamen, with a view to showing the value and volume of the shipping industry of Ohio.

The backbone of the railroad strikes being now broken it is expected that trade and transportation will soon begin to seek its regular channels again. It will, however, take a few days before the freight market meets with any appreciable change for the better.

The remarkably large cargo of the new steel steamer Kearsarge from Escanaba to this port is the largest that has ever been discharged here. Working six Brown hoists, 3,718 gross tons was placed on the dock in twelve hours, or between 6 a. m. and 6 p. m. Monday, after which she cleared for Two Harbors.

The steel steamer Grecian, of the Menominee Line, struck a rock in the "Soo" Canal when bound down on Monday. After discharging her cargo at Ashtabula it if expected that she will be brought around to this port for survey and repairs. The damage is in the after compartment, on the port side.

The Christian Endeavours' and especially the marine portion of that community are making quite a stir holding their convention here this week. In the William Wilson branch connected with the Floating Bethel of this port there are four captains, three engineers, several wheelsmen, sailors, deckhands and firemen.

Capt. Brown, master of the new steel steamer Kearsarge, built by the Chicago Ship Building Co., reports the machinery on his boat as working entirely satisfactorily on her maiden trip and she averaged 12 miles an hour. With 3,718 tons of ore her draft was 17 feet 1 inch. The engines and boilers were built by the Cleveland Ship Building Co.

The powerful little steamer Swansea, owned by the corps of engineers U. S. Army, was engaged this week in taking soundings in the river below the Lake Shore bridge, where a steamer grounded a few weeks ago. The soundings showed a depth of from nineteen feet to nineteen feet 6 inches opposite the life-saving station, where the grounding occurred.

The committee sent here from Ashtabula to learn if the ore handlers felt like going on a strike were sent back with "a flea in their ear." Erie, Conneaut and Fairport gave the same decision and work at the Harbor will therefore proceed as usual. The couple of days detention has however been very annoying to several vessel owners.

Mr. Adolph U. Sheldon, chief draughtsman at the yards of the Globe Iron Works Co., was married on Tuesday to Miss Theodora H. Ricks, niece of Judge Ricks. A wedding breakfast was served, after which Mr. and Mrs. Sheldon left for New York. Thursday they will sail on the Fuerst Bismarck for Europe, to be home in October at No. 1119 Prospect street, this city.

Manager Newman of the Buffalo & Cleveland Line has had placed on the dock here a narrow gauge railway for the handling of fuel. It is a gravity railroad, and dump cars holding 3,000 pounds each are run on it. These cars are loaded at leisure, and when the steamer is ready to fuel 45 tons of coal can be placed in her bunkers in 20 minutes. The saving of this time is a material advantage to the boats.

Work is now proceeding in the laying of 13,731 feet of pipe lines at Milwaukee, to be used in connection with the fire-tugs Foley and Cataract. When this work is completed the facilities of the fire-tugs will be doubled; they will be able to reach fires many blocks from the river. The first adoption of these up-town water connections for fire use and to be operated by the fireboats is credited to this port.

One of the crew of the Gospel boat which processed on the Fourth takes exception to the note in THE RECORD wherein it was announced that they were all green hands. It appears that three of them had served a commission in the U. S. S. Yantic and all had traveled on salt water as well as fresh. The acting bo'sun was a handsome looking youth of thirteen and he with the worthy captain must chiefly have caught the eye of your scribe.

For a large new boat, the North West, with her two sets of quadruple expansion engines and battery of Belleville boilers, is doing exceedingly good work. The occasional detention she has experienced from her machinery has been through minor changes being made and when she gets down to running smoothly her schedule time will be held punctually to the hour. Her passenger patronage has already developed to a good paying business and is certain to increase month by month and season after season.

Dock room to lay up instead of wharfage to load cargo has been the rule at this port during the week and a few vessels are at anchor in the outer harbor ready to accept fair rates of freight if any offers, or remain attached to the ring of their anchors until times brighten and strikes are settled. The railroad trouble has cut off coal shipments, and the iron miners' strike on the Gogebic range has stopped ore shipments from Ashland, but, little heed is paid even to these conditions, for there was nothing left for the vessels at previous rates of freight.

The new steel tug J. R. Sprankle, built for L. P. & J. A. Smith, at the Globe Shipyard, had her trial trip last Saturday. She is 70 feet long by 16 feet beam and 9 feet depth, her tonnage being 44.77. Her mean draft is 6½ feet, with ten tons of coal in the hold, her displacement at this draft being eighty tons. Among the party on the trial trip were Mr. James A. Smith and George Elsey, Jr., for the owners, and Mr. J. R. Oldham superintendent of construction. The tug gave the best kind of satisfaction, and General Manager Elsey says he would like to have three more steel tugs like the one just completed.

Among the business transacted by the Board of Directors of the Chamber of Commerce at its regular monthly meeting on Tuesday was an adverse report on the question of opening a ship canal from Lake Erie to the Ohio River, recently agitated in Congress. A communication received from Eugene T. Chamberlain, U. S. Commissioner of Navigation, inclosed memoranda showing a comparison of the taxes on shipping for state and local purposes at several ports in the United States, with leading maritime nations. A clause of the memoranda was to the effect that the tax levied on Clevland lake shipping last year exceeded the total amount paid to the German, French and English governments by their three greatest lines. Mr. Chamberlain's communication was referred to a joint committee of navigation and taxation.

The J. H. Devereux struck a boulder in the "Soo" canal and will have to be drydocked for survey and repairs. This is rather an expensive way of finding

obstructions, and the attention of the canal authorities should be called to the foul bottom of the canal in a more forcible way than ever before. These boulders are generally spoken of as rocks, giving the impression that they are fixed obstructions, but it is now understood that they are simply detached pieces of stone found rather frequently of late in the handiest places for iron and steel vessels to stave in their bottom shell plates. The cost of repairs and detention to one vessel alone would defray all ordinary expenses for sweeping the canal and no stronger argument should be required to make the work an imperative one.

Capt. Orville W. Green, master of the steel steamer Griffin, owned by the Lake Superior Mining Co., and managed by Mr. Harvey H. Brown, of this port, made her last trip through the new Hay Lake channel. Capt. Green reports the cut as being all that he could desire and pronounces it as being a fine piece of work all through and far away ahead of what he had been led to believe or expected to find on his first trip through there. The Griffin is the fourth steamer to take this channel bound up, being preceded by the North West, Wade and Cadillac. On the down trip only one boat, the Canadian steamer Monarch, has as yet used the new cut, it not yet being officially opened. Capt. Green has been in the Lake Superior trade for twenty-five years, and, remembering the tortuous navigation of early days, he is enthusiastic over the work of the new Hay Lake channel, which he says may be safely navigated by a novice after it is opened for general traffic.

DETROIT, MICH.

Special Correspondence to The Marine Record.

The lighthouse supply steamer Amaranth has cleared for Lake Michigan with a cargo of lighthouse materials and supplies.

Stevenson & Marsh have chartered the passenger steamer Lora, and will use her as an excursion boat between Detroit and the Thousand Islands. She leaves on her first trip on Monday evening next.

The local board of steamboat inspectors have held an investigation of charges of incompetency, brought by Eugene A. Charest against Capt. Hanratty, of the steam yacht Rosalie B. The charges grew out of the yacht running aground in the Clinton river June 25, while making a trip between Mt. Clemens and Star Island.

John Allen, of this city, has invented and patented a hand steering gear which is highly spoken of. The new device is said to be suitable for both steamers and sailing vessels; also, when made on a smaller scale, for steering hook and ladder trucks and bicycles. Mr. Allen has shown his model to quite a number of vessel men, and it is understood that an experimental gear will be placed on one of the steamboat lines next winter.

The propeller A. G. Lindsay is at the Detroit Dry Dock, having her seams calked and a length added to her smoke stacks. The Lindsay is a medium sized wooden steamer of great carrying capacity for her registered tonnage, and was built five years ago by the Detroit Dry Dock Co., under the superintendence of Capt. M. W. Humphrey. Like the Ogdensburg Line of wooden steamers she is a staunch well equipped craft, and can be depended on to leave a balance on the right side of the ledger even at minimum freight rates.

BIOGRAPHICAL SKETCH.

CAPT. WILLIAM STYON.

Capt. William Styon was born in March, 1817, in the liltle town of Ely, in Yorkshire, England. Mr. Styon, Sr., and his family resided in Yorkshire, England, until William, the subject of this review, was eight years old, when he and his family started for the far-off western land of America in the spring of 1825. They sailed from Liverpool on the American schooner Columbia. It was the vessel's first trip, and she had 300 emigrants on board as passengers. It took her seven weeks to make the passage across the Atlantic. The family first settled in Oneida county, on the Mohawk river. They resided there two years, until 1827, and then moved to Kingston, Ontario, where they remained two years. In 1829 Mr. Styon purchased a farm at Sackett's Harbor, Jefferson county, N. Y. There the old people ended their days in happiness and contentment.

William Styon, Jr., as he grew to manhood was ambitious to be a sailor, and at the age of sixteen he shipped on the schooner Richard M., at Oswego, N. Y., the vessel's port of hail. He sailed two years on this schooner, when, by his strict attention to duty and on account of his aptness as a sailor, he was promoted to the position of mate, though only 18 years old at the time.

During Capt. Styon's early career as a sailor he was in the employ of Brunson & Crocker and Wyman & Co., well known elevator and vessel men of Oswego, N. Y., and Merrick, of French Creek. Capt. Styon sailed as mate for four years and was then given charge. He was master of this vessel for two years. Afterward he was given the command of the brig Wabash, which he sailed for four years. Among the other vessels which he had charge of while he hailed from Oswego were the schooners Portland, Reindeer and Lucinda. These vessels were all engaged in the grain and general cargo traffic between Oswego and Chicago. They were, as a rule, owned by the mill men of Oswego, and carried flour and merchandise on their up trip, and returning brought grain for their mills and elevators. Chicago was at that day only a rude fortress surrounded by a few houses. The merchandise had to be taken ashore in lighters, and the grain was loaded from canal boats which came down the Illinois canal from the interior of the State.

Sailing in those days was not like it is at present, when the lake mariner has light-houses and buoys to mark every shoal. In those days all the lake mariner had to guide him was the compass, yet very few vessels in those early days of lake navigation are reported as getting into serious trouble. Traveling was slower, as they had to go entirely by sail. Frequently Capt. Styon in his early voyages had to lay several days with his vessel at the entrance of the Detroit or St. Clair river waiting for a favorable wind to take them through. If they made the round trip between Oswego and Chicago in a month they were considered to have done well, yet vesselmen made as much if not more money in those slow days of "wind jamming" and small vessels as they do now under the high pressure of steam and immense cargoes.

The Welland canal used to be another great cause of delay to sailors along in the thirties and forties. Everything was done by horse power on this canal. When Capt. Styon first began sailing the ponderous wooden gates of the locks didn't swing on their hinges with the same facility as the modern iron and steel gates with their steam motive power, which have taken the places of the old ones. The vessels used to be pulled through the locks with horses. There were two firms along the canal, each of which kept 100 horses in its stables, and they both got rich at the business. Frequently the vessels would get aground in the channel, and it would take extra horses and lots of heaving to get them afloat, and this was very prolific of profanity among the sailors in those days. Their vessels usually carried from 16,000 to 17,000 bushels of wheat. The last boat which Capt. Styon sailed before he came to Michigan was the topsail schooner Portland.

In 1837 the Captain was married to Miss Margaret Gift in Brownville, Jefferson Co., N. Y. In the fall of 1852 Capt. Styon with his family, consisting of his wife, son and three daughters, went to Michigan and settled at Newport, now Marine City. Then it was a small village with only a few houses, whose inhabitants were principally engaged in the marine and vessel supplying business. Capt. Styon, as he sailed up and down the St. Clair river in his early voyages, had become greatly infatuated with the attractiveness of its delightful situation, of its beautiful timbered shores and the well cultivated farms along its banks. For these reasons, and because that there was the most convenient point to continue his avocation of sailing, he finally concluded to locate at Newport. It was a thriving little place in those days of '52 and '53. Work could be had for the asking and at good wages. There were no empty houses when Capt. Styon and his little family settled there. The first six weeks they stopped on the Canadian shore of the river with Capt. Folsom, an old messmate of Capt. Styon's. Finally the captain procured a log shanty, cleaned it out, plastered up the cracks between the logs, and moved his family there to live. In this abode Capt. Styon and his wife resided during the winter very comfortably, happy and contented, surrounded by their little family of four children. With plenty to eat and lots of fuel to burn it was easy to keep out the winter's chill and cold from their small dwelling-place.

Capt. Styon was able to procure all the comforts and necessities of life for his family in those early pioneer days, as he worked cutting ship timber during the winter and made from two to three dollars per day. Thus the winter passed pleasantly. The timber which Capt. Styon cut was to be used in building the propeller Challenge for Detroit and Buffalo parties. After cutting the timber the captain worked upon the vessel until she was ready for sea. When the Challenge left Newport on her maiden voyage Capt. Styon shipped on her as chief mate and pilot. The propeller first went to Buffalo and there loaded merchandise for Chicago making the trip in about three or four days. On her return trip she stopped at Mackinac to coal and loaded fish. Off Presque Isle she blew up and foundered. Capt. Styon was on watch at the time of the accident, and it was through his presence of mind and his brave and heroic efforts that anybody on board the doomed boat was saved from drowning. The vessel sank almost immediately after the explosion occurred. Capt. Styon swam to the yawl boats as they were floating away. The first which he came to had one end knocked out, and he had then to swim to the other. He first picked up the captain's wife, who was floating on a board, and then the colored porter. The oars of the yawl boat were all gone and Capt. Styon had to manage the boat the best way he could. They then picked up all the persons whom they could find of the passengers and crew. The passengers and those of the crew who were near the boiler at the time of the explosion undoubtedly never knew what occurred. None of the engineers or firemen survived to explain the cause of the accident. They were all probably killed by the explosion or maimed so that they went down with her. The vessel and her entire cargo of oats and fish were a total loss, but she was fully insured.

Upon his arrival at Detroit Capt. Styon was presented with $75 by the owners of the Challenge for his bravery in rescuing the passengers and crew of that ill-fated craft.

Capt. Styon continued sailing mostly in steamboats after this until about twelve years ago. He was with Capt. T. C. Lester on the Estabrook and Capt. P. H. Clark on the Bay City. He was also interested in vessel property, aud was part owner of the barges T. Spademan and Marine City.

Capt. Wm. Styon and his wife now reside at Marine City, and the evening of their lives is gliding pleasantly and happily along, rounding out with the fulness of years.

ITEMS FROM THE LOG BOOK.

Ashland ore shipments for last week were 23,436 tons, and of lumber, 6,410,000 feet.

The Canadian steamer Algonquin has been lying at Sarnia three weeks, unable to get a cargo.

Last week's shipments from Duluth were, wheat 615,000 bushels; flour, 75,000 barrels; ore, 50,000 tons; lumber, 3,000,000 feet.

Capt. Ed. Napier, of Chicago, sold the steamer Music to the Macatawa Steamboat Co., taking the steamer Macatawa as part payment.

The action of the treasury department in removing Stewart H. Moore as local steamboat inspector at Chicago has been revoked, and Mr. Moore will continue in office.

J. T. Holland fell or walked off the light-house pier at Sault Ste. Marie on Wednesday morning, and was drowned before help could reach him. The body was recovered.

The barges Bahama and Yankee, which went ashore above Kincardine last fall, on the east shore of Lake Huron have been released and towed to Port Huron for repairs

The steam yacht Lotus, the finest on the St. Lawrence river has just been purchased by George Hall, president of the George Hall Co., of Ogdensburg, N. Y., from J. G. Averell for $10,000.

The schooner Jennie White will take a cargo of wheat from Detroit to Ogdensburg, and from there will go to the Atlantic coast to engage in the phosphate trade between the West Indies and the States.

Commander W. W. Mead, U. S. N. Light-House inspector, announces that in the near future, another buoy will be placed at the upper end of Vidal shoal, about one mile above the Sault Falls Canal.

A change of masters has been made in the Shores Line of steamers. James J. Carr, formerly of the steamer Prentice, takes charge of the new steamer Adelia Shores and Capt. J. H. Comstock of the Johnson will go in the Prentice.

The steamer S. S. Curry took into Fairport a cargo of 3,852 tons of ore a few weeks ago. And now comes along the Kearsarge with 3,718 gross tons from Escanaba to Cleveland. With a foot or two more water either of these vessels would carry a 5,000 ton cargo.

President George Uhler, of the National Marine Engineer's Beneficial Association, says that that order will not strike out of sympathy, or for any other cause.

The barge Montpelier, with lumber from Marquette to Tonawanda, has reached Port Huron waterlogged, and will be dry docked there for sundry repairs.

Coal handlers on strike at Duluth, are generally successful in persuading non-union men to quit work. The companies are arranging to bring men from Twin Cities and Chicago to do the work. They will live on the docks and bunks will be built for them to sleep on. Arrangements are being made to feed the men on the boats.

The Lucania's time on her last eastern trip from Sandy Hook to Brow Head was five days eleven hours and forty-seven minutes. Allowing her two hours and twenty minutes to complete the voyage to Queenstown. She will have made the passage in a trifle over five days and fourteen hours, which is only about two hours short of the best record.

A libel has been filed in the United States court at Duluth, by Andrew Johnson as administrator of the estate of Marquis Larson against the Crescent Transportation Co.'s steamer James Fiske, jr. The action is to recover $5,000 for the death of Larson, which was caused last spring by his falling through the forward hatch of the Fiske while he was employed on the vessel.

The steamer White Star caught fire at Cheboygan, Mich., last Thursday, and was damaged to the extent of $5,000. The captain and crew barely escaped with their lives, and lost all their effects. The White Star was burned just one year ago in much the same way, while lying at a wharf in Port Huron. In this case, the watchman discovered the flames at 4 o'clock, bursting from the boiler-room, and before the crew could extinguish the fire, the whole after part of the boat was in flames and all of the upper works aft of the main hatch was burned away above the boilers. The steamer was owned by Capt. Slyfield of Port Huron, who commanded her. She was built in Port Huron in 1874 and was valued at $22,000. There was no insurance. She was without cargo and had been to Chicago to tow down the barge E. S. Robinson, which had been bought as a consort for the White Star. Capt. Slyfield has the sympathy of a large number of vessel men in his financial loss.

THE CONSTRUCTION OF FERRY STEAMERS.

At the ordinary meeting of the Institution of Civil Engineers, London, held on May 22nd, two papers were read dealing with recent developments in the construction of ferry steamers.

In the first comunication, entitled "Recent Types of Ferry Steamers," Mr. Andrew Brown, M. Inst. C. E., described some of the most modern vessels now at work in Great Britain and in America. The Oxton, on the River Mersey, had been at work for fifteen years, but was still of interest as the first example of a ferry steamer propelled by four screws. The dimensions of the vessels were: Length, 130 feet; beam, 45 feet; depth, 14 feet; average draft, 7 feet 6 inches. She was divided into eight water-tight compartments. The screws were right and left handed, 7 feet 4 inches in diameter, 13 feet 6 inches pitch, and had each three blades. She was propelled by two pairs of compound, surface-condensing, inverted cylinder, direct acting engines. The Hutton represented another, more recent, type of ferry steamer. This boat was employed to carry passenger and vehicular traffic at Woolwich Free Ferry on the Thames. Her leading dimensions are very similar to those of the Oxton, but she was provided with a vehicle deck, raised 8 feet 9 inches above the main deck, and 58 feet long. She was propelled by paddle-wheels, having feathering floats, and could carry 130 tons of live load, in addition to 20 tons of coals and stores. The ferry steamer Finnieston, recently constructed for the trustees of the Clyde navigation for cross-river vehicular and passenger service at Finniestrn Quay in Glasgow harbor, possessed considerable interest, inasmuch as it was furnished with an elevating deck, which provided means of reaching the quay at all conditions of the tide, without sloping gangways. A detailed description was given of this boat, which was unlike any other ferry steamer extant, and might be aptly termed a floating lift. Besides the ordinary main deck, the vessel was provided with a deck which could be raised or lowered. To accomplish this, double rectangular columns, three on each side, about 30 feet apart, were carried into the body of the vessel, and connected with the main deck by heavy steel angles. Their upper ends were bound together by longitudinal and transverse steel girders of "I" section, and diagonally by struts secured to the main decks. In the space between each set of columns there was an upright steel screw having a series of rings or collars, by which it was suspended from a steel block fitted with rings of gun-metal, on which the collars of the screw revolved. The block was secured to the columns and was so placed that the elevating deck could be raised to a height of 15 feet above the main deck. On each of the screws a strong nut of manganese bronze was fitted, having guides so constructed that they were free to travel between each set of columns, while they were prevented by the latter from turning. On the top of each nut a saddle was fitted, on which rested two longitudinal "I" girders, running the entire length of the elevating deck and carrying the whole weight of the deck and load. The elevating deck was 78 feet long and its extended breadth 32 feet. It was raised or lowered by a set of horizontal triple expansion engines, which drove, by steel gearing, two fore-and-aft shafts, placed one on each side of the vessel, under the main deck, and each furnished with three worms gearing into a steel worm-wheel fitted to the bottom of each upright screw. All the screws revolved simultaneously, thus casing the nuts on which the elevating deck rested to rise and fall in unison, and so quietly that passengers on the platform were unconscious of its motion. A rudder was furnished at each end of the vessel, but, though so fitted, it was found that since the vessel had commenced work on its present station the rudders had hardly, if ever, been used, the vessel being manoeuvered entirely by its propelling screws. These were four in number, each protected by three guide-rods, so placed as to prevent the mooring ropes, etc., from becoming entangled with them or with the rudders. The Finnieston had now been at work continuously for four years during all states of traffic in the river, with difficult and unsteady loads, and subject to the most unfavorable conditions of the current. She had not been stopped by the highest gale of wind which had prevailed since she started, and was so thoroughly under control as not to cause the slightest interruption to the river traffic. Briefly summarized, the advantages claimed for this class of ferry steamer were: First, passenger and vehicular traffic could be carried on with economy and facility; secondly, the vessel was adapted to carry railway wagons; thirdly, the traffic was landed on the level of the quay irrespective of the height of the tide, and was thus more rapidly embarked and discharged; fourthly, the necessity was obviated of providing so great an extent of ground for slips or approaches as was required by the old system.

In America, where the distances to be crossed were generally much greater than in this country, the ferry steamers were usually of large and powerful build. The Bergen, built in 1889, was the first ferry steamer employed in New York harbor propelled by a screw at each end, and was still plying between Hoboken and New York. A larger boat, the Netherland, built in 1893, had lately been added to this station. Both were designed for vehicle and passenger traffic. They had central midship houses, which contained hatches over the engines at one end and around the funnels at the other end. On each side, fore and aft, were gangways, so arranged that the vehicles might come on at one end and leave at the other, the ends of the vessel being rounded to fit the score of the bridge. The length of the ferry boats used near New York varied between 160 and 235 feet, and the beam was about 32 feet. Mild steel was used almost entirely in the construction of the hulls. They were propelled either by screws or by paddles worked by beam engines. The transfer railway ferries presented quite a different type of vessel from those used for passenger service, their engines being chiefly horizontal, placed on the guards, and driving the paddle-wheels independently. A description was given of the Michigan Central, a paddle boat running between Detroit and Windsor, Ont., a distance of three-quarters of a mile. Her engines worked up to 2,000 h. p., and she was capable of carrying twenty-one 40-ton railway cars. The Transfer, on the same station, was even more powerful, having engines of 3,000 h. p. and being provided with a screw in the stern, in addition to the paddle-wheels. Between St. Ignace and Mackinac, in the Strait of Mackinac, a distance of seven miles, the steamers were specially designed for working in heavy ice and open water. The author described the St. Ignace and the St. Marie, of 3,000 and 4,000 h. p., respectively, and capable of transporting ten and eighteen 40-ton wagons. The paper concluded with an account of the Solano, probably the largest and most complete ferry steamer afloat, which transferred railway trains across the Straits of Carquenez, between Porto Coata and Benecia.

The second paper was on "The Birkenhead Ferry Boats Wirral and Mersey," by Mr. Charles Jones, of Liverpool. Up to the date of the opening of the Mersey tunnel, the Corporation of Birkenhead, as owners of the Woodside Ferry, enjoyed a monopoly of the traffic between that town and Liverpool, the profits derived from the annual transport of from 8,000,000 to 10,000,000 passengers being of considerable assistance to the borough rates. Latterly, however, the revenue had shrunk to such a degree that it appeared likely that the profits from the ferry would disappear entirely. Under these circumstances the Corporation had decided to supersede the three boats which had rendered efficient service up to 1890, but were of low speed and somewhat extravagant in fuel consumption, by two of the newest type and of higher speed, capable of performing the passage, at any state of the tide, within four minutes.

The two boats which gave the title to the paper were described in detail. Their dimensions were: Length between perpendiculars, 144 feet 6 inches; length over all, 150 feet; breadth, molded on deck, 32 feet; breadth, molded on water-line, 28 feet 6 inches; moulded depth, 10 feet 9 inches; depth of hold, 10 feet 5 inches; ratio of depth to length, 13.44 per cent.; ratio of breadth (load-line) to length, 5.07 per cent.; coefficient of displacement, 0.62 per cent.

The hulls were built of Siemens-Martin steel of the best quality, and were divided by bulkheads into eleven water-tight compartments. The vessels were propelled by two independent sets of triple expansion engines driving twin-screws, each 7 feet 9 inches in diameter. In the Mersey's trial trip four runs were made, two with and two against the tide, the mean speed of the four runs being 13.06 knots.

TO DETERMINE THE LIMIT OF FOG BANKS.

The inspector in charge of the lake marine service of the Weather Bureau states in a letter to THE RECORD as follows:

"Relative to mapping out the limit of fog belts on the lakes as suggested in THE MARINE RECORD of June 28, I have to say that the Chief of the Weather Bureau has already directed that the investigation of this subject be commenced at once. All vessel masters on the lakes have been requested to make note of the time at which they enter and leave fogs and the geueral weather conditions under which the fogs were encountered. With this information the Bureau will chart the fog banks and obtain a definite knowledge of where the fogs are most prevalent and the main characteristics of their formation. It is anticipated that some interesting and valuable results to the Bureau, as well as the commerce of the lakes will be obtained by this investigation, and in this connection it is hoped that all vessel masters will stand ready to assist in this good work which is essentially for their benefit. It is gratifying to note the number of vessel masters who have this season notified the Chief of the Bureau of their willingness to take observations and assist in this work as far as possible. I would here state that the number of voluntary observers on the Great Lakes need only be limited by the number of ship masters in commission, and that the Chief of the Bureau will welcome heartily all new observers and furnish them in return with the publications of the Bureau, which will be of interest to them.

"The investigation of the 'Currents of the Great Lakes' has resulted in some valuable information, and this knowledge has already been put to such practical use that it has saved enough property to pay the expenses of the lake marine service for a number of years. The Chief of the Weather Bureau is making these investigations on practical lines and his object is to make the service of the most practical benefit to the marine interests of the Great Lakes, assured that the ship-masters will be quite ready to assist in helping along so good a cause."

U. S. SHIPPING COMMISSIONERS AND THE COASTWISE TRADE.

The House Committee on Merchant Marine and Fisheries has reported favorably to the House on the Maguire bill, 5,603, removing from the United States shipping commissioners their jurisdiction over coastwise vessels. Up to 1886 the shipping commissioner had no jurisdiction over coastwise vessels, whether engaged in trade within the limits of the United States or engaged in the coastwise foreign trade. By coastwise foreign trade is meant vessels sailing between United States ports and foreign ports on the American continent—like British America, Mexico, the West Indies, etc.—but not in the commerce of the Great Lakes.

It was found to be desirable, however, to have the services of a shipping commissioner in vessels engaged in the coasting trade as well as those going to foreign ports, not coastwise, and in 1886 an act was passed by Congress giving United States shipping commissioners powers over coasting vessels. Under this law a shipping commissioner could, at the request of the master or owner of a vessel, ship or discharge crews engaged in coastwise trade. But this law did not, in express terms, provide for the questions relating to seamen, such as their duties, their rights, penalties for misdemeanor, shipping articles, etc.

In 1890 a law was passed to the effect that when a shipping commissioner shipped a crew an agreement was entered into by each seaman shipped, touching his conduct during the time of the contract. This law is now in force, and relates to domestic or foreign coastwise vessels as well as to vessels going to other foreign ports. Its provisions are numerous, and provide for all the many questions likely to arise between masters and owners and crews. For example, the questions of wages, stipulations as to advancement of wages, provisioning of ships, conduct of masters and crews, punishment for desertion, etc., are considered and treated upon. The shipping commissioner is empowered to ship and discharge coasting crews, and has authority to act as arbitrator in questions of complaint of crews and differences arising between them and masters and owners.

There are good reasons why provisions for all such questions should be made in the shipping laws and that they should apply to coastwise as well as to foreign vessels. Along the Pacific coast an immense coasting trade is done in which large, full rigged ships are engaged. Some of the trips made by these vessels equal voyages to foreign ports. The law of 1890 has been in force since that time and has always been found to work satisfactorily, but at the instance of the Seamen's Union of San Francisco the bill for its repeal was introduced and no provision has been made to take its place.

Shipping men say that to repeal the act of 1890 would be to take a step backward to the period when the shipping commissioner had no jurisdiction over coasting vessels. This they say would bring about a very undesirable state of affairs, and would put a premium on desertion, mutiny and general misconduct. For example, a seaman could ship, draw advance wages and then desert at a coastwise port and the masters or owners could not prevent him from so doing except by process of civil courts, which would be impracticable in the case of a vessel stopping at a port en route to another. It would take out of the hands of the shipping commissioner all the power he now holds in relation to coasting vessels, and would make no provision for the law repealed. It is, shipping men say, impossible to apply to labor matters on the sea the same laws that are applied to them on shore, and any law which tends to prevent desertion and mutiny and at the same time imposes no hardships upon seamen, such as is the law of 1890, should not be repealed.

THE BLAKESLEE BILGE PUMPS.

(ILLUSTRATED.)

The pumps built by the Blakeslee Manufacturing Co., have a great record for reliability. One of the best known of their line, at least so far as our readers are concerned, is the Blakeslee bilge pump for light service aboard vessels of all kinds, and which is shown in figure 1.

FIG. 1. BLAKESLEE BILGE PUMP.

This pump was first brought before the public twenty odd years ago and is widely quoted by steamboat men as being one of the oldest and most reliable bilge pumps on the market today.

It is not designed for pumping to any considerable height but will raise water in considerable quantities and with but little steam, making from eighteen to twenty feet suction. It is built for long service and will stand it, and will work satisfactorily in any position. This is guaranteed.

There is no possibility of its freezing, even in the coldest weather, which is a desirable assurance.

The Blakeslee bilge pump is furnished in several sizes with a capacity per hour with 50 pounds of steam, of from 2,400 to 4,500 gallons.

The well-known Blakeslee jet pump (Fig. 2.) built by the Blakeslee Manufacturing Co., is very often used for bilge water pumping and gives equally good results.

FIG. 2. BLAKESLEE JET PUMP.

It has a capacity of from eight to sixty gallons a minute, depending upon the size used.

The company call attention to the fact that each of their pumps of this pattern has cast on it the words, "Blakeslee Jet," which have been adopted as a trade mark.

THE Northwestern Elevated Railroad Co. have purchased outright the store of John A. Roebling's Sons Co., at 171 Lake street, Chicago. They are also figuring for other property between La Salle street and Fifth avenue. John A. Roebling's Sons Co. have leased a store at 49 Lake street, and manager George C. Bailey states that they will move within 60 days.

THE PROPOSED CANADIAN LINE OF MAIL STEAMERS.

The correspondence which has passed between Mr. James Huddart, the organizer of the proposed line of swift mail steamers to run between Great Britain and Canada, and which has been laid on the table by the Dominion House of Commons, tells the story of the initiation of the project. The negotiations appear to have opened with a letter from Mr. Huddart, who, it will be remembered, established the line of steamers now running between Vancouver and Sydney, submitting a scheme to Sir John Thompson, the Premier of Canada. In that letter Mr. Huddart said, "the governing idea is to make the Dominion of Canada an Imperial highway, not only to its own people and for its own mails, but to many points in the United States of America, to and from all ports of Europe, Australia, New Zealand, China and Japan to the Hawaiian Islands, and to India around the world. In my judgment the statesmen of Canada could never reach the potentialities of that patriotic and historic railway, the Canadian Pacific, until this idea is accepted. Mr. Van Horne, the president of the Canadian Pacific, in the most cordial manner on behalf of his company, has assured me of its willingness to co-operate with myself and friends so as to bring about a traffic such as shall be worthy of Canada and its great Pacific railway." The letter concludes in this wise: "Any man should feel unspeakably privileged to be employed in this work of statesmanship and practical Imperial Federation." The Hon. Mackenzie Bowell, the Dominion Minister of Trade and Commerce, who recently visited Australia with the object of promoting trade between that prospective commonwealth and Canada, replied to Mr. Huddart's letter, and at his request Mr. Huddart sub. mitted a modified proposition, confined to the Atlantic, leaving the Pacific contract undisturbed. He then proposed a subsidy of $750,000 per annum for the Atlantic service.

A few days later Mr. Bowell wrote to Mr. Huddart a letter which at the time was described as a provisional contract. He stated that the government was prepared to enter into a contract (subject to the approval of the Dominion Parliament) with Mr. Huddart, or a company to be formed by him, for an Atlantic service of four steamers of 8,000 to 10,000 registered tonnage, capable of steaming 20 knots an hour at sea, for passengers and freight, fitted with refrigerating machinery for the transportation of beef, fish, game and other perishable articles in a chilled or frozen condition; trips to be weekly from Quebec and Halifax to a terminal port in England to be hereafter agreed upon; the contract to be for ten years, renewable upon such terms as may be mutually agreed upon. The government agreed to pay $750,000 per year for ten years, and to pay for the ten years subsequent out of the subsidy earned the interest upon a capital sum of £1,500,000 at 3½ per cent. per annum, the contract to be entered into within three months after the authority had been obtained from Parliament. Mr. Huddart accepted this with a proviso that the rate of interest should be 4 per cent. Sir John Thompson, on the 6th of March, concurred that the renewal of contract should be for another ten years' period, and that the guarantee of interest for the second term of ten years should be at 4 per cent. on £1,500,000, to be paid out of the subsidy earned if the service proved satisfactory. In reply to a letter from Mr. Bowell on the subject, Mr. Huddart wrote from England on March 28th, 1894, that he was designing the steamers to carry about 4,000 quarters of beef in a chilled condition. This would require the co-operation of the Canadian railways, as they would have to provide for its carriage in winter in warmed trucks, and in summer in a cool state. The whole question comes up for consideration at the Inter-Colonial Conference which commences this week at Ottawa.

It must not be assumed, however, that opinion in Canada is unanimously in favor of the proposed Atlantic fast line. The Board of Trade of St. Johns, New Brunswick, has made very strong representations to the government, pointing out the hopelessness of competing with the fast liners running to New York. This arises in a large measure from jealousy against Halifax, which would become the winter terminal point of the line, were it established. A correspondent who writes from St. John to the *Canadian Engineer* on the subject says: "The Board of Trade have made some very strong arguments against the granting of the proposed subsidy, and think that these views will be in accordance with the majority of the electors of Canada, and how utterly absurd it would appear for our government to enter into steamship business (as practically they must do if they grant this large subsidy) in competition with the old and thoroughly established lines of travel via. New York. It will, no doubt, be in the memory of most people that when the original tenders were asked for the service, $500,000 subsidy was offered. The proposal was then made for a 15 or a 16-knot service, with a contract to run twenty years. If the subsidy had been granted at that time, what position would our government be in, competing at the present time with a 22-knot service to New York? Our government is now asking for a 20-knot service, which will not be able to compete with the faster steamers to New York, and they will bind themselves down to this service for a long term of years; whereas, every effort is being made to secure increased speed for the New York lines, and, if the lower speed steamers are still to be accepted by our government, it must necessarily throw our line out of competition for the passenger traffic, and make it simply a fast freight line. If we are going to have a freight service, much slower boats can be accepted and can be made to pay; therefore, a very much lower subsidy would be ample. However, it seems quite evident that with the large majority which the government has, it is altogether likely it may be able to carry this measure through." The correspondent, however, rather gives his case against the enterprise away when he says that if the fast service is to be established, all that the St. John people ask is that they may at least have one winter's trial of it in order to show how much more regularly and speedily passengers can reach the west through this port than they could through Halifax.

LAUNCH OF THE NICARAGUA.

In spite of the remarkably dull times and the anything but flattering outlook for new tonnage, the steamer Nicaragua was launched from the yards of James Davidson, Bay City, Mich., on Thursday last. Her dimensions are: 257 feet over all, 37 feet beam. The engines are triple expansion, built by the Frontier Iron Works, cylinders 16, 25 and 42 inches in diameter by 34 inches stroke. The boilers are 12 feet 3 inches by 12 feet, fitted with Howden forced draft system. The carrying capacity of the new boat will be 65,000 bushels of wheat on 14 feet draft.

AMPLITUDES.

The following approximate amplitudes of the Sun's rising will be given each week in this column during the season of navigation: A second bearing of the Sun may be taken at sunset by reversing the bearings to read west instead of east, as, for example, N. E. by E. for a sunrise bearing would read N. W. by W. for a sunset, or E. 30° N. to W. 30° N.

LAKE ERIE AND S. END LAKE MICHIGAN. LAT. 42° N.

Sunrise.	Bearing (degrees).	Bearing (points).
July 13	E. 30° N.	NE. by E. ¼ E.
July 19	E. 29° N.	NE. by E. ½ E.

LAKE ONT., S. END HURON AND CENTER LAKE MICHIGAN LAT. 44° N.

Sunrise.	Bearing (degrees).	Bearing (points).
July 13	E. 31° N.	NE. by E. ¼ E.
July 19	E. 30° N.	NE. by E. ⅜ E.

N. END LAKES HURON AND MICH. LAT. 46° N.

Sunrise.	Bearing (degrees).	Bearing (points).
July 13	E. 33° N.	NE. by E ⅛ E.
July 19	E. 31° N.	NE. by E. ¼ E.

LAKE SUPERIOR. LAT. 48° N.

Sunrise.	Bearing (degrees).	Bearing (points).
July 13	E. 34° N.	NE. by E.
July 19	E. 32° N.	NE. by E. ⅛ E.

With a compass correct magnetic, the difference between the observed and true bearing will be the variation for the locality. If there is any deviation on the course the vessel is heading at the time of taking the bearing the result after the variation is applied will be the amount of deviation on that course.

MARITIME LAW.

HIGGINS et al. vs. STEAMSHIP ALLIANCA.

United States District Court, Southern District of New York.

1. MARITIME LIENS FOR INSURANCE PREMIUMS—STATE LAW—DEBT CONTRACTED ABROAD—ADVANCES. Libelants, as brokers acting for a domestic steamship company, procured insurance on the vessels of the company in England, Tyson & Co., their English correspondents, obtaining policies from underwriters there. According to established custom in England, Tyson paid the premiums and charged them against the libelant, but no specifications of lien were filed here under the State law. Libelants afterwards reimbursed Tyson, and themselves filing specifications, brought these suits against the vessels of the company to recover the money advanced. The law of New York State gives a lien for certain debts "contracted" within this State. Held, that Tyson had no lien here because the debt was contracted in England, and because he had filed no specifications, and, Tyson having no lien, libelants could obtain none by subrogation.

2. The State law gives a lien "for advances made for the purpose of procuring necessaries for a ship or for the insurance thereof." Held, that to create a lien the advances must be made for the purpose of obtaining the insurance or paying off those who have a lien therefor; but when they are merely made for the purpose of repaying an old debt not accompanied by any lien, no lien is created in favor of the person making such advances.

Brown, District Judge.

New York, March 15, 1894.

THE LAKE ST. CLAIR AND LAKE ERIE CANAL.

The charter of the Lake St. Clair & Lake Erie Ship Canal Co. has passed both Houses of the Dominion Parliament and is only waiting for the Governor-Generald's signature to become a law.

D. Farrand Henry, the Detroit engineer who drew the plans and will have charge of constructing the canal, says work will be commenced next spring and finished in a couple of years. The charter does not specify the amount of toll. Such matters are left in Canada to a commission somewhat resembling our interstate commission, who will probably establish a maximum toll of 3 cents per ton each way.

The motive power in the canal will be furnished by the company's tugs. All other power, for running trains, moving draw-bridges, lighting the canal, etc., will be furnished by electricity from a centrally located power house.

The charter provides that as soon as $500,000 capital has been subscribed and $50,000 paid into some chartered bank, a meeting of the stockholders shall be held at Toronto, and the company organized for businees.

The incorporators of the company are William C. Baxter and Winfred C. Porter of Minneapolis; L. Frank Lukens, of Milwaukee; Charles A. Towne, of Duluth; Edmund G. Arnot, of Brooklyn; D. Farrand Henry, of Detroit; David Tisdale, of Simcoe, Ont. and Hervey A. Olney, of Saltash, Cornwall, England. Among others interested are C. A. Youmans, a capitalist of Neilsville, Wis., and Moore & Finch, a prominent firm of New York engineers, who are connected with the Hudson river tunnel.

The estimated cost of the canal is as follows: Excavation, $2,800,000; bridges, $240,000; other work, $160,000; total, $3,200,000. An issue of $4,000,000 worth of bonds will be made as soon as the company organizes, and it is said that they have already been "placed." The expense of operation and maintenance will be light, and it is claimed that if only half of the lake traffic takes advantage of the canal a handsome revenue will be realized on a capitalization of $4,000,000.

WORK AT THE UNION DRY DOCK.

It is refreshing in these times to learn that a large shipyard at Buffalo has found it necessary to advertise for skilled labor. An official of the company is quoted as saying a day or two ago: "We have the Reynolds and North Wave here in dock to be repaired and we are all ready to begin work on a new fire tug for the city of Cleveland, to be constructed virtually on the same model and plans as the Hutchinson, the new Buffalo fire tug. We are short of men, that is, good ship carpenters, and we can employ at least a hundred for some time to come."

The new fire tug which the company proposes to build for Cleveland is a contract awarded them after sharp competition with several other builders, and the general plan and outfit of the Buffalo tug Hutchinson was taken into consideration before the contract was let.

AN OFFICER'S LICENSE REVOKED.

The local steamboat inspectors at New York, Samuel G. Fairchild and Thomas H. Barrett, have revoked the license of John C. Hyde as pilot, on account of the foundering of the tug James D. Nicol on June 24th, and referred the evidence taken by them to the United States district attorney, so that he may begin criminal proceedings if he sees fit.

The report of the inspectors gives an exhaustive review of the circumstances under which the tug went down. The evidence showed that at the time the Nicol left New York there were eighty-seven persons aboard, with Capt. Hyde in charge. When the tug was last inspected, on October 6, 1892, she was authorized to carry 45 passengers in the waters of New York harbor, but was not authorized to sail more than fifteen miles outside of Sandy Hook. She was well equipped with life-boats, life-rafts and life-preservers, and had been making excursions regularly to the fishing banks for years, and was thoroughly seaworthy. The water on the day of the disaster was not rough, as proven by the experience of other tugs on the same day. The report adds:

"After a thorough and careful review of the evidence submitted to us, we are satisfied that John C. Hyde, acting as pilot of the James D. Nicol at the time of the disaster, unmindful of the oath made by him at the time he received his license, to faithfully and honestly, to the best of his skill, ability and judgment, and without concealment by reservation, to perform all the duties required of his station, did willfully violate the provisions of title 52 of the Revised Statutes of the United States by overloading the vessel with passengers and of negligence in navigating the James D. Nichol, as pilot in charge, in waters beyond the jurisdiction authorized by his license, and for said negligence and inattention to his duties the license of John C. Hyde is hereby revoked, and the papers submitted to the United States district attorney to take what further action he may see fit."

The report exonerates John Farrel, engineer, from any responsibility on account of the disaster.

THE MARINE RECORD

ESTABLISHED 1878.

PUBLISHED EVERY THURSDAY, AT 144 SUPERIOR ST., (LEADER BUILDING), CLEVELAND, O.

IRVING B. SMITH, CAPT. JOHN SWAINSON, } . . . PROPRIETORS

BRANCH OFFICE:

CHICAGO, ILL., ... 179 LaSalle Ave.

THOMAS WILLIAMS, Associate Editor.

SUBSCRIPTION.

One copy, one year, postage paid, . . . $2 00
One copy, one year, to foreign countries, . . $3 00
Invariably in advance.

ADVERTISING.

Rates given on application.

Entered at Cleveland Post Office as Second-class Mail Matter.

CLEVELAND, O., JULY 12, 1894.

THE form of sympathetic strikes inaugurated during the past week seems to bear a close relation to the un-American boycott imported from abroad. There is no limit to the demoralization of business which such an illegal method would assume providing it was allowed to gain an ascendancy, and, while we believe that the evil has been scotched, a vast deal of inconvenience to commerce and misery for the laboring population has been brought about through the initial attempt of labor leaders to enforce the doctrine of all being unhappy in company. In so far as lake transportation is concerned, the strikes have had less influence perhaps than in other channels of industry. The labor leaders have done all they could to stop the wheels of commerce, but the end is in sight and trade will again soon seek its regular course. The present experience will no doubt prove a valuable lesson to organizations whose constitution favors a strike direct, through boycotting, or in sympathy with distant and distinct industries, and probably never again will such an unwise attempt be made to coerce employers by the hardy toilers who, after all that can be said against them, earn their bread by the sweat of their brow.

A GENERAL feeling is now being evidenced among vessel owners to lay up their tonnage until fair living freights are offered. This feature is without doubt the forerunner of brisker and better times in the carrying trade, for, notwithstanding the miserably low rates that have recently prevailed, and more or less ever since navigation opened, there has been an enormons quantity of cargo transported. Just as soon as an unanimity of interests in holding up freights sets in, then better figures will be quoted on the general volume of traffic. It is a foregone conclusion that large coal shipments must be made before the season closes. Ore will also be sent forward to keep the furnaces going through the winter in supplying the iron and steel trades, besides, mine owners don't want to keep the iron in the ground. Indications are that grain and lumber will be quite as brisk as in any previous season, though, of course, the line boats cut into grain freights and tend to batter down any decent figures offered for its carriage. On the whole, it may be premised that the present quietness argues strongly in favor of a brisk trade later at fairly remunerative rates of freight, at least for the better class of steam tonnage.

THE lake ship canal to the coast project will not down even if it has to become an international waterway. Representative Baldwin, of Duluth, has just introduced a bill in the House embodying the main features of the old Chipman project. The bill appropriates $100,000 for a survey and estimate of cost and provides that President Cleveland shall name a commission of five members, a majority of whom shall be civil or military engineers, whose duty it shall be to examine and select the most feasible route for the canal and make a report of the same. The commission shall also be authorized to enter into negotiations with Canada for rights and privileges through Canadian territory. The canal is to be constructed, owned, managed and operated by the government of the United States, subject to such joint ownership and control by the Canadian government as may be found necessary for any part that may be located and constructed through Canadian territory; that part of the canal as may be constructed in Canada is to be subject to the joint ownership and control by the government of Canada and the government of the United States under terms agreed to by treaty between the two countries. It is generally regarded as a chimerical project by all except the actual advocates of the waterway and it still makes it less worthy of support when the bringing in of Canadian jurisdiction is touched upon.

OFFICERS VERSUS PASSENGERS.

"The managers of the North West make a mistake when they put a distance between her chief officers and her patrons," said a well known vessel owner this morning.

"On the steamer Manitou and the five steamers in the Detroit & Cleveland Line, the captains are chosen not alone for their knowledge of lake seamanship, but for their appearance and gentlemanly manners. They do not put on the exclusive and remain in their staterooms or pilot houses, but they go about the boat and make themselves acquainted with the passengers and answer cheerfully the thousands of questions concerning the lakes and lake commerce that are prompted by the interest people naturally feel when they are on the water.

"There is a total absence of red tape and other kinds of agony on these boats, and in fact on the majority of good lake passenger boats, and when the passenger has taken his trip and thinks over the delightful time he has had all around—made particularly pleasing by the instructive conversations he has had with the clever captain—he feels that if he wants pure enjoyment he must take that trip again next year. These methods have proved the most valuable of all advertisements for the lines that practice them. The information spread by the pleased passenger among his friends is worth a ton of circulars.

"I will not go into details concerning the actions of the North West's captain and his assistants—actions no doubt advised by their manager, for we all know how things are run on that boat. But let them put this in their pipes: If they follow my advice they will make more than they lose by it."

The foregoing is taken from the Detroit *Free Press* and is of course given as one man's version of what he considers the discipline of a large exclusively passenger steamer ought to be. Without attempting to commend or criticise in any degree the management of the line under which the handsome large boat is sailing, we can not but express our opinion that the exclusiveness in this case, as in many others of a similar nature, means undivided attention to duty, a feature which the owners, passengers and underwriters have every reason to demand.

An officer whose interests are chiefly concerned in the enjoyment which individual passengers may experience, simply neglects his work. Mails, passengers or cargo are placed on board to be carried safely to a destination with all possible dispatch, nor, in the case of passengers, is it by any means part of an officer's service to make himself a walking encyclopaedia or popinjay for the benefit or amusement of transient acquaintances being transported for a few miles over the lakes. Nor is it permissible for them to hobnob with "members of the cloth," relatives, life-long friends, owners or their representatives. If such a rule was allowed to become prevalent, we are rather inclined to believe that the officers of passenger steamers would not unfrequently be found airing their nautical lore or acting the coxcomb when they ought to be taking rest so as to enable them to be bright and ready when duty called, at least, such is the regular experience where lax discipline prevails.

There will of course always be a diversity of opinion on this subject, and a good deal depends on the trade or route a passenger steamer is placed on, also the size, equipment and care necessary to safely conduct her over the ground, certainly there is no inattention to duty permissible, or time for the officers to be card playing and chatting with passengers on the "big white boat." Just as soon as such a system is found desirable, a double crew ought to be shipped, or a few brass bound supernumeraries paid for that special part of the transportation work.

Referring to the foregoing opinion of "a well known vessel owner," "the officers should answer the thousands of questions propounded to them by the traveling public," well! that in itself is more than any corps of officers could accomplish, and if they endeavored to satisfy particular enquirers we are certain that charges of gross favoritism would soon be made against the officer that permitted his time, or his owners, to be monopolized by one or more individuals, or groups of passengers. However, this ground has been pretty well thrashed over in the Atlantic passenger trade, and it has been found the best policy not to allow any familiarty between passengers and the officers of the boat. Courteous, but distant, and no conversation while on duty, or off duty for that matter, for then rest should be taken, is the rule there, and we think it is a good one too. Such being the case there is more reason than ever for the strictest attention to duty of the officers of an exclusively passenger steamer on the lakes where navigation is of so much more momentous importance than it is on the ocean.

It may be accepted as a truism, that the deck officer of a well patronized passenger steamer that lays himself out to oblige, interest and amuse passengers, will very shortly lay himself out of a berth. Further, when an officer desires to act in this role he should step down and out; that is, down from his post of duty and out of his uniform, become a passenger *pro tem* and enjoy himself to his full bent, resuming the work he is to be paid for when circumstances demand.

The discipline differs about in the same degree as tonnage. The master of a schooner may, with all due decorum, relieve the wheel or lookout while the seaman goes to light his pipe, nor need there be any loss of dignity thereby on the part of the master, while the A. B. may consider it a gracious act. With large, valuable steam tonnage the master must keep his officers keyed up, and they in turn wind up their subordinates to the top notch of smart intelligence, ever on the alert to execute orders or meet emergencies. It is needless to state that such a disciplinary system could not be observed unless strict attention to duty was held as being the objective point.

CROWDING RACING YACHTS.

All lovers of aquatic sports will be sorry to learn of the foundering of the Dunraven yacht Valkyrie through collision with the Satanita, a competitor, during the starting of a race at the mouth of the Clyde.

According to the sailing master of the Satanita, the casualty was due to the excusion steamers and private yachts crowding around the racers so that they were unable to safely manoeuver in approaching the starting line.

It is somewhat remarkable that the Valkyrie should have been sunk through the very circumstances that her owner complained and protested about when racing with the Vigilant last year at New York. One of the last acts of Lord Dunraven before leaving the United States was to write a letter in which he announced that unless the fleet of boats which followed the racers in this country was put under better control and kept clear of the racing yachts, Englishmen would hereafter refuse to come over and submit to the dangers and discomforts of racing American yachts. However, it is a palliation of our offense to know that visitors and sight seers are kept in as good control on this side of the Atlantic as they are on English racing grounds, and, furthermore, that the casualty took place in those waters and not ours.

Yachtsmen will be more than surprised to learn of the repeated defeats which the Vigilant is experiencing, though the concensus of opinion among New York yachtsmen seems to be that Herreshoff would do well to fit a tiller on the Vigilant at an early date. A beat of a few seconds or even minutes could be readily accounted for by Herreshoff's unfamiliarity with the course and the fact that none of the native yachtsmen out of twelve experts recommended by the racing board would attempt to handle the Vigilant with a wheel. They are all used to a tiller and claim that the turns cannot be made with sufficient rapidity with a wheel. Another feature which may in a measure account for the Vigilant's erratic work is the telegraphed reports regarding the slovenly set of her canvas. Of course, there can be no excuse for any defects of that sort, as it is strictly within the duty of those who are sailing her to give her every possible chance to win if it is in her.

One of the main questions which must present itself to yachting circles is, how would the Valkyrie have showed in British waters if she had been permitted to compete with her late opponent? It is not expected that her sailing would have been any different, or that in the run across the Atlantic better speed had developed therefrom. The issue, however, remains and lovers of true sport ought in future to take well defined measures so as to give ample protection and plenty of sea room to all yachts engaged in contests of speed and skillfulness in handling, and this too whether in a local regatta or an international racing match.

THE number of wooden sailing vessels built in the United States to which official numbers were awarded by the Bureau of Navigation, Treasury Department, during the quarter ending Sune 30, 1894, were 199, having a tonnage of 13,438, In steam there were 87 of a tonnage of 14,211 all built of wood, and 18 of 20,855 tons built of iron and steel. This makes a total of 304 vessels of 48,503 tons.

YACHT RACES ON THE CLYDE.

The result of the Royal Clyde Yacht Club races, in which the Prince of Wales' cutter-rigged keel boat Britannia has beaten the successful Yankee cup-defender, in four races is a surprise to the sailing fraternity as well as to the general public. If the Valkyrie had not been sunk in the Clyde, and had lived to best the Vigilant, the humiliation would not be so great. But it is our disappointment to see a sloop, not the queen of English racing craft, defeat the pride of America. It is true that Britannia has defeated the Valkyrie in evenly contested races, but in the strongest conflicts Valkyrie proved the swiftest messenger, and to be now beaten by a boat that was considered inferior to the best English first rater is not very pleasant.

The importance of the Clyde races to the yachting world can scarcely be gauged too highly. Since the Yankee schooner yacht America surprised the Englishmen out of their accustomed stolidity by walking away with the America's Cup in 1851, eight times has it been challenged and desperately fought for by yachts flying the Britigh ensign, and each time the challenger has been sent back vanquished.

On each occasion the Englishmen have carried away

with them a smothered feeling that, under different conditions, the result would not have been the same. But an American yacht won the last races, of that there can be no dispute. Valkyrie went home a defeated ship. But now a boat that Valkyrie has defeated, has beaten our own Vigilant. If this is not sufficient incentive to bring another cup challenger to America, British yachting spirit is not what it is esteemed to be. And if America does not build a yacht that is faster than the Vigilant, Yankee ingenuity is not what it ought to be.

In the case of the Thistle's defeat in 1887, it was said that inshore races were unfair, and this led to a complete change in the deed of gift, one especial improvement being made in the matter of courses over which future contests were to be sailed. The complaints registered by the Englishmen against the land locked course, starting in the Upper Bay off Staten Island, were well taken, and the striking out of this course, and laying them outside for future races, was a concession to the English and at the same time a decidedly sportsmanlike step. And now comes in the same argument or feeling among Americans, yet, with the loss of the Valkyrie, there is no means of settling the much-vexed question of whether a race between her and Vigilant over the Clyde course would show different results from those sailed in American waters.

In actual sailing time,the Vigilant beat the Britannia but lost on time allowance. This is another point which must be considered in drawing comparisons and trying to figure out the chances of Britannia,or a boat built on her general plan, for making a successful struggle for the America's cup next year.

The cup races are sailed under the New York Yacht Club rules governing time allowance, which are somewhat different to those in vogue in the Royal Clyde Yacht Club and which would work to Vigilant's advantage. Other conditions of the Clyde races differ from those prescribed for the cup races on this side. The crew of the Thistle laid great stress on this point in 1887, and Capt. John Barr, who sailed the Thistle over here, said frequently that if he could try conclusions with the Volunteer on the Clyde, under the Royal Yacht Club rules, he'd give her a good thrashing.

The races last year between the Vigilant and Valkyrie, and their result are fresh in the public mind. It was a gallant struggle and the Vigilant's supremacy was supposed to be fairly and emphatically established. Though it is to be remembered that at the first race, held on October 5, there was not enough wind and in the little sailing that was done, the Vigiliant had slightly the worst of it. She won the race on the seventh by something like twenty minutes and the third race was won by a few seconds only.

The fact, however, remains that the Vigilant beating the fastest British yacht in American waters, has been beaten in return by a yacht inferior to the Valkyrie in British waters. The Britannia is a smart boat well handled; these facts were established by last year's races so far as the Vigilant was concerned, and she must either do better sailing or she will come west again in the same shape that the Valkyrie went East, viz., as a defeated competitor. At all events the result of the races will be to stir up anew the interest in the America's cup contest and a challenge for next year is a foregone conclusion. Whether it will come from the Clyde or the Thames is hard to guess, but whichever it happens to be it will result in the most exciting series of races ever sailed off Sandy Hook. There is little question but that the cup defender will be a Herreshoff boat, still the trial races which will decide this point will find as many boats ready to shoulder that responsibility as were in the field last year.

LAKE FREIGHTS.

The lake freight market is dull and lifeless and a large number of vessels are lying at the docks at all lake ports waiting for fair rates of freight on anything requiring transportation. Labor traubles during the week has of course had much to do with the present dullness in grain, coal and ore, yet, even if this feature had not predoninated the general outlook was not a flattering one to vessel owners so that a partial stoppgae of work was regarded as a release from the striving to secure a new dollar for an old one.

The ore docks at Ohio ports are pretty well crowded and until there is demand at the furnaces with a cessation of troubles in the Lake Superior mining district, very little but contract ore will be shipped. A few recent charters are quoted from Marquette to Tonawanda at 70 cents, to Cleveland 55 cents, Ashland and Duluth 60 cents, with Escanaba practically out of the market for new charters. The situation at Duluth on account of the coal handlers strike is quieter than ever before known, and two or three cargoes were taken this week at 1¼ cents wheat to Buffalo, the Kingston rate is nominally 2½ cents. Grain, Chicago to Buffalo, has been slow and fitful throughout the week, vessels clearing with only a part cargo, and this at shippers rates Though 1 cent has been the nominal quotation it is known that this figure has been cut, wheat to Kingston reached the low figure of 2¼ cents, at Milwaukee, a cargo of oats was taken for Buffalo, at ¾ cents, the lowest figure known out of that port. Toledo to Buffalo wheat 1 cent, Buffalo coal rates are unchanged with shipments dull. Chicago 45 cents, Milwaukee 40 cents and Bay City 35 cents, Manitowoc 30 cents, Toledo and Duluth 25 cents. Oswego to Chicago 80 cents, Milwaukee 75 cents, Toledo 50 cents. Erie to Chicago 45 cents. The coal freights from Ohio ports has not been a factor this week, though Fairport and Lorain is quoted at 50 cents to Milwaukee, with very light receipts by rail. Ashtabula to Lake Linden, 35 cents, other ports, including Cleveland, are barely receiving sufficient for fuel.

FOR SANDUSKY HARBOR.

Judge Hare, of Sandusky, O., has been before the United States Senate Committee this week in behalf of Sandusky Harbor, for which he wants an increased appropriation. He asked for $25,000 to remove and rebuild the range lights along the straight channel. The committee has promised to grant his request.

STAGE OF WATER AT ST. MARY'S FALLS CANAL.

DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

Depth of water at the St. Mary's Falls Canal for the week ending July 12, 1894:

July	5	8 a. m.,	15	feet	1	inches.	8 p. m.,	15	feet	0 inches.
"	6	"	15	"	1	"	"	14	" 10	"
"	7	"	15	"	0	"	"	14	" 11	"
"	8	"	15	"	0	"	"	15	" 0	"
"	9	"	15	"	0	"	"	15	" 1	"
"	10	"	15	"	0	"	"	15	" 0	"
"	11	"	15	"	0	"	"	15	" 0	"
"	12	"	15	"	0	"	"			

A STEAMBARGE BURNED.

A serious fire accompanied with loss of life occurred on the small steambarge Myrtle M. Ross at South Haven, Mich., early on Tuesday morning. Frank Smith, son of the master and owner, was suffocated and the body terribly charred. Although quite young he was well known and last season had charge of the schooner H. M. Avery. Chief Engineer Charles Connell of Muskegon was badly burned and several others seriously. It is not known how the fire originated. All hands, except the watchman, were asleep and the fire broke out before he could arouse the crew.

The Ross loaded at White Lake on Monday with lumber for St. Joseph, to South Haven early in the morning of Tuesday. She is a comparatively new barge, and valued at $20,000. The pecuniary loss is placed at between $5,000 and $7,000, with no insurance.

A COURTEOUS ACT.

A pleasing story is told concerning Capt. Joe Cottrell who sails one of the steamers in the Minnesota line. Here it is: A couple of years ago he commanded the Northern Queen, of the Northern Steamship line, and, contrary to orders, made a stop at Marine City, his home port, and, as a penalty, was invited to resign. A few weeks ago the big North West, of the same line from which he had been discharged, entered the Soo canal very much behind time. Capt. Cottrell, who was in ahead with his boat, saw the predicament and also saw a way of getting even, so he courteously gave up his place and turn to lock through the canal to the big passenger boat. When he reported the fact to his manager he was commended for giving the North West the right of way. As for Manager John Gordon, of the Northern line, he just rubbed his eyes to see if he was awake. An act so little in consonance with human practice surprised him beyond measure, and, to go further, it is now rumored that Manager Gordon, fully appreciating the courtesy of his late employe, is said to have his eye on Cottrell, and nobody would be surprised to see him given charge of the North Land, sister ship to the North West, when she comes out next spring. This latter assertion should, however, be taken for what it is worth, although Capt. Cottrell's thoughtful courtesy to his old line will no doubt be kindly remembered. Relative to the cause of Capt. Cottrell leaving the Northern Line, Capt. J. W. Westcott, of Detroit, says that such a statement does Capt. Cottrell an injustice. The truth of the matter is that Capt. Cottrell voluntarily resigned from the Northern Line to enter the employ of James Corrigan, of Cleveland.

THE TWENTY FOOT CHANNEL.

Some vessel masters complain where they pass the dredges at work on the deep-channel cut, and think of the large amount of money that is being put into this project, that it is a chimerical scheme, and that the expenditure of government funds will go for naught. "Why," said one of them the other day, "that deep channel especially on the Lake St. Clair, in going to fill up again before it is announced as completed. We know that the bottom of Lake St. Clair is principally mud and sand, and the wheels of the boats and the big storms are going to wash the stuff over the edges and down into the channel. And there are a good many more that look at it as I do."

Gen. O. M. Poe Corps of Engineers, U. S. Army, who has general charge of the deep-channel project, says this is all wrong. The channel averages 800 feet in width, and for every foot dredged at the sides, and extending a certain distance out, there is a slope of 1½ feet. It is figured that what little material does set into the cut will spread itself down this slope and merely increase its width, and that at the furthest the slope will not intrude 9 feet on each side, thus decreasing the width of the channel to about 782 feet. This slope was made for the double purpose of protecting the bottons of boats and the center of the channel. The General says furthermore that at the foot of the Flats, where the dredges are thickest, the amount of silt is small, almost nothing, and that from the Grosse Point light down the current of the river forms a natural channel But a comparative small part of the lake has to be dredged. Where heavy dredging is required on Lake St. Clair—6 feet 2 inches being the greatest depth and the average much less at these points—the material is blue clay and very nearly as hard as rock; it is certain that such stuff as this cannot be washed into the channel, where little dredging is required to bring the depth to the 20-foot standard it is found that the material is very soft—sand and mud—and that even should the channel fill in, say in the course of five years, it could be dredged out at small cost. The same principle applies to the dredging in Lake Huron, in Soo river and other point.

OBSERVATIONS ON THE GREAT LAKES.

In the monthly Weather Review of April, just published, the following report is given by those masters who started out early in the season:

Navigation having opened about April 1, the Lake Marine Section of the Forecast Division has received reports from the captains of eighteen vessels navigating the Great Lakes. The following miscellaneous items are extracted from their reports:

Capt. H. Zealand, steamship Simon Langell, April 24, central part of Lake Huron; Aurora began 8.30; very bright and dancing at 11 p. m.; receded at midnight. April 25, 7.50 p. m., we sighted, by the help of mirage, Stannard Rock Light, which was distant 58 miles by chart measurement. We were on course from Whitefish Point to Manitou Island and had Caribou Island abeam. Aurora began at 9.10; quit at 10.45.

Capt. A. B. Drake, steamship Thomas Maythan, April 25, 12.30 a. m., Stannard Rock not lighted.

NOTE.—Capt. Zealand's hypothesis that the light was visible by the help of the mirage, assumes, of course, that he was correct in estimating his own location. Capt. Drake's statement that this light was not lighted at 12.30 a. m. should be taken in connection with the possible existence of "mirage" since the same optical phenomenon that causes the light to be visible to distant vessels may cause it to be invisible to nearer vessels. In general, the noise from the fog horn and the light from a light-house are equally subject to the laws of irregular refraction and reflection by the atmosphere.

Capt. Edward Mooney, steamship Wawatam, April 12, Milwaukee, aurora borealis display.

Capt. W. P. Robertson, steamship Petoskey, April 24, Chicago, aurora borealis from 10 p. m. onward.

Capt. C. H. Lewis, steamship John C. Gault, April 12, Lake Erie, N. 52° 50′, W. 82°, 9.45 p. m., aurora very bright, bearing north-northwest to northeast; died out at 10.30 p. m.

Capt. W. A. Russell, steamship William A. Proctor, April 17, Ogdensburg, northern lights lasting about one-half hour. April 17, 12 miles west of Clayton, St. Lawrence river, 6. a. m., buoy in St. Lawrence not yet placed. 22d, 7.45 a. m., no buoy on Galloo Shoal.

REPORTS FROM U. S. LIFE-SAVING STATIONS.

Through the kind co-operation of the General Superintendent of the Life-Saving Service and the Secretary of the Treasury, the Weather Bureau has received 14 weekly transcripts of journals for the month of April from the keepers of four Life-Saving Stations on the Great Lakes. The following special notes by the respective keepers are extracted from these journals:

Middle Island, Lake Huron.—Donald McKenzie, keeper. April 12, northern light very brilliant from about 8 p. m. to midnight; 24th, northern lights 10 p. m. to midnight; 26th, northern lights 9.30 p. m. to midnight.

WRECKS ON THE GREAT LAKES.

The Weather Bureau has published a special report, with chart, showing the location of wrecks that have occurred on the Great Lakes during the years 1886–'93, inclusive. This report and chart shows 227 wrecks, with a loss of 420 lives, and about $5,000,000 of property, distributed as follows: Lake Superior, 32 vessels; Lake Michigan, 85; Lake Huron, 44; Lake Erie 50; Lake Ontario 16. Of ten important wrecks that occurred during the years 1892 and 1893, seven occurred during stormy conditions, of which timely warning had been given by the Weather Bureau, and of the remaining three, two were due to fog.

The present editor, Prof. Cleveland Abbe, notes that a small remarkably proportion of these wrecks seem to have occurred near large ports; thus, on Lake Superior, near Duluth and Marquette, only 2 are located; on Lake Michigan, near Chicago, Milwaukee, and Grand Haven, 4; on Lake Huron, near Port Huron, Saginaw, Alpena, 3; on Lake Erie, near Toledo, Sandusky, Cleveland, Erie, Dunkirk, and Buffalo, 12; on Lake Ontario, near Oswego, 6. In all, 27 out 226.

THE MANUFACTURE OF TUBES.

(ILLUSTRATED.)

Randolph & Clowes, of Waterbury, Conn., is the only one of the many manufacturers of brass and copper goods in the Naugatuck valley which has launched out to compete with the world in the manufacture of seamless drawn brass, copper and bronze tubing, brazed brass tubes, both fancy and plain. Various other articles are manufactured by them, among which are huge seamless copper shells with pointed heads, measuring 14 inches in diameter and 6 feet high, manufactured for dynamite and torpedo shells for the Pneumatic Dynamite Gun Co. for guns in the war vessel Vesuvius, Randolph & Clowes being the only house the makers could find to manufacture these seamless, after a world-wide search. Our illustration shows the unique design which the manufacturers exhibited last year at Chicago and, relative to the works where the product is sent out from, it is learned that the copper rolling mill and brass rolling mill where the sheet brass, sheet copper, German silver and copper bottoms are manufactured, are both comparatively new and contain all the improvements that modern science has invented and are most complete in every respect. The same may also be said of the brass and copper kettle factory. The seamless drawn copper range boiler factory must be very interesting, but this is only where the boilers are put together, tinned on the inside, polished, fittings attached and made ready for the market, for the seamless shells from which these are made are manufactured in the seamless tube mill. This mill is one of the most complete tube mills in the world and contains machinery which is duplicated nowhere. The manufacture of seamless tubes and shells requires exceedingly heavy and powerful machinery, to say nothing of skilled labor and an immense outlay of capital. This tube mill, having an area of about 75,000 square feet of floor space, contains, among the 30 or 40 draw benches and hydraulic machines, one of the largest hydraulics for drawing seamless tubes in the world. The machine weighs about 160,000 pounds, and is capable of drawing a tube 18 inches in diameter and 20 feet long, and a 24 inch diameter tube 12 feet long, besides being capable of drawing up shells as large as 38 inches in diameter.

These extensive works are owned exclusively by Edward F. Randolph, of New York, and George H. Clowes, of Waterbury, and are able and do turn out as fine work as any tube mill in the world, as will be fully illustrated by their exhibit.

In appreciation of the energy of the firm, and in justice to the high point of manufacture which it has arrived at, the judges at Chicago awarded a medal for the collective exhibit of the seamless drawn copper range boilers and spun brass and copper kettles, and another medal for a collective exhibit of the seamless and brazed tube sheet brass and copper, etc., besides which, awards were granted for brazed brass and copper tubes and moldings, seamless drawn brass and copper tubes and other specialties.

SIXTY MILES AN HOUR.

One of our foreign exchanges has this to say about a sixty mile an hour ship: Some stir has been created in the nautical world by the wonderful speed performances of the topedo destroyer Hornet, which has been able to travel at the rate of 27¾ knots an hour, and the Daring making over 29 knots an hour. But this speed, great as it is, is as the tortoise compared to the hare if a certain Mr. Haig, of Montgomeryshire, can do what he proposes. That ingenious gentleman has worked out the design of a ship that is to travel at the rate of sixty miles an hour at sea, and, whatever the world may think, himself believes that such a ship is not only possible, but practicable. We are no disbelievers in the possibilities of science, be they in immediate prospect or in the far perspective, and therefore have no hesitation in giving an outline of Mr. Haig's new ocean flyer for the benefit of our imaginative readers.

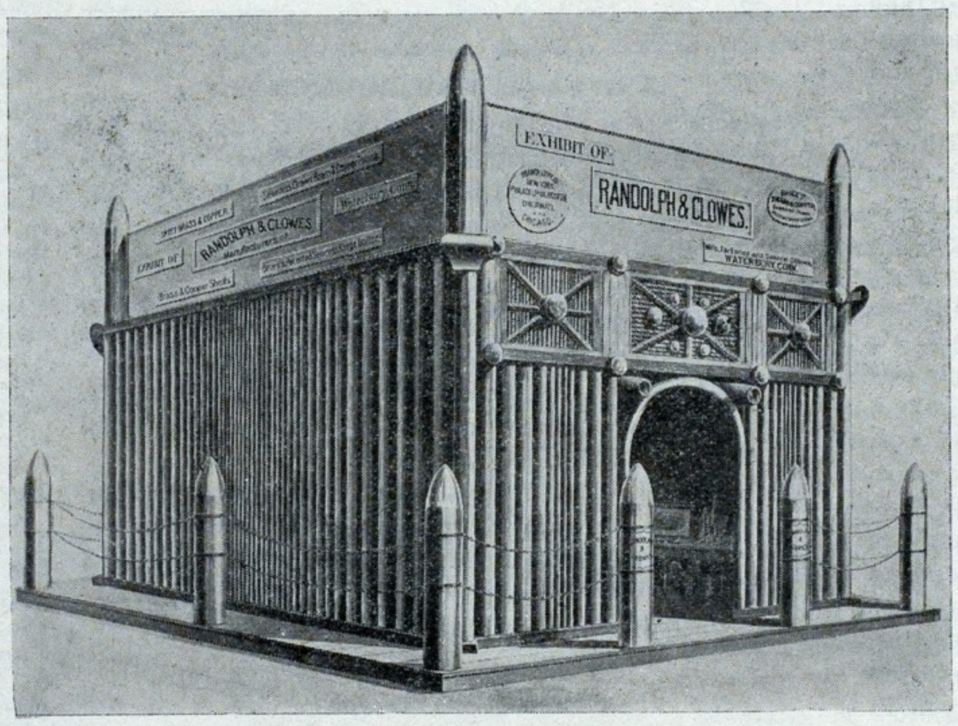
First and foremost, he proposes to dispense with the screw propeller, and revert the discarded paddle wheel, but very differently constructed and very differently placed to the orthodox paddle. He proposes six paddle wheels, one behind the other, in the very center of the ship and just above the bottom. The paddle wheels are to work in a channel, open at both the stem and stern of the ship, so as to admit a continuous stream of water in which the paddles will revolve. The upper part of each paddle wheel, or about two-thirds, is to work in an air-tight casing kept filled with compressed air at such a pressure as will prevent the water in the channel rising up the paddle-box beyond a fixed point. The effective portion of the wheel, or about one-third of the circumference, works in the water passing through the channel aforesaid. The paddle wheel itself is small and peculiar. The top and bottom edges of each paddle are sharp, so that they enter the water gradually and silently, and the ship is to have the six paddle wheels all alike and 12 feet diameter, and worked by two engines, one on each side, or the cranks of the respective wheels may be connected together and worked synchronously by engines placed in convenient positions. Such is the theory. It has the merit of being original, and it presents an interesting problem in naval architecture, but the best thing Mr. Haig can do is to build a small vessel as an experiment and let us see how it works.

THE DOG AND THE PIPE.

"On a train traveling toward Marseilles an old sea captain, a pretty girl and an old maid were in one compartment," said the truthful man to a New York Telegram reporter. "The captain wanted to smoke his pipe, and he asked the young lady if she had any objection.

"'Certainly not,' she replied. 'My father is a sea captain, and I am used to smoking.'

"The captain was enjoying his smoke when the old maid, who was angry because she was not addressed, and who hated smoking, seized his pipe and threw it out of the window. The captain he was mad, hopping mad, but he kept quiet and had one eye on the old maid's dog. At last his supreme moment came and he grabbed the dog, and saying, 'I hate dogs,' threw the animal out of the window. The old maid she was terrible. She rave and she cry and swear she will have the captain arrested. Now, the captain was a very good man, and he became much frightened at this. So when the train was approaching the station he opened the door a little bit, so he could jump out quickly, and run away. When the train slowed up a bit he pushed the door wide open to jump out—when, what do you think? There, sitting on the step of the car, was the poodle dog smoking his pipe."



A GROTTO OF TUBES.

ACTOR AND SAILORS.

A clever conceit is mentioned in the New York *Times* as being practiced on Henry Irving the world-wide known actor by the crew of an American navy vessel. It appears that one of the last acts of the crew of the United States flagship Chicago before sailing from London to Antwerp recently was a presentation to Henry Irving, the English actor. A deputation of the crew waited on Mr. Irving at the Lyceum Theater and presented him with a water-color picture of the ship, and a silver box inscribed: "Presented, with a picture, by the crew of the United States ship Chicago to Henry Irving in rememberance of his kindnes during their visit to England, 1894." The scroll which accompanied the offering was as follows:

Neptune Rex—*To All Good Sailors Round the World Greeting:*

WHEREAS, We have been pleased to take into our royal consideration, and give this as a royal patent under our sign manual to certify, that Henry Irving has this day visited our royal domain in the United States ship Chicago, and has given warranty that he has before visited our royal domain in the service, of our esteemed and well-approved cousin. Uncle Sam:

THEREFORE, In case of losing his head and falling overboard; we recommend all whales, sharks, dolphins, eels and pollywogs under our command to abstain from eating, annoying, or otherwise maltreating his person. We further direct all sailors, soldiers, marines, politicians, and landlubbers who have not crossed our royal domain to treat his with that proper respect due to one who visited our realm: disobey under penalty of our royal displeasure.

Done at our court on the equator this 12th day of June, 1894, according to the computation of mundane affairs at 8 o'clock p m.

By the King and his royal pleasure,

PORPOISE, Prince of Blowers.

Registered—A. FINN, Clerk.
Joci Causa—Aequo. NEPTUNE REX.

Mr. Irving sent the crew an answer to this communication, as follows:

To the Crew of the United States Flagship Chicago:

MY DEAR FRIENDS—I don't know how to thank you enough for the beautiful picture of your ship and the address and silver casket which you have sent to me. My kinsmen beyond the sea have so made me welcome that I felt in my heart that Britons and Americans are brothers in love as well as in blood, and you seamen who rule the seas which used to separate but now unite them, having made me free of your domain. I feel that space is obliterated, and that I am at home from East to West. Yours, in all sincerity and good fellowship.

HENRY IRVING.

PHOENIX LIKE.

High up on the reef out of reach of the waves, held firmly by a cradle of coral, lie the remains of the brig Borough Belle, that was driven among the outlying shoals of the Solomon Islands by a hurricane on February 3rd last.

The San Francisco *Call* first gave the news to the World of the wreck of the Borough Belle, getting the information simultaneously with the Lloyds in London.

Now comes a sailor from Sydney, who was a member of the crew of the steamer Aldinga, with a story that is both remarkable and interesting. Nelson Swenson is his name, and he says, and the records substantiate his statements: The Aldinga plies between ports in Australia and New Caledonia. She touched at Ballona reef, an isolated coral formation, twice during a recent trip, and now the Sydney and Melbourne mariners are telling strange yarns about what the steamer's crew saw.

Out of the sea has risen the Borough Belle. Nature and the industrious little coral insect have mounted the wrecked brig upon a pedestal of delicate coral work as powerful in its construction as the choicest conceit in spun glass. The Belle has been lifted out of reach of the water by an irresistible force that evidently exerts its powers beneath the coral bed on which she rests. The sea washes at the foot of the astonishing marine monument some six or eight feet below the elevation where the Belle's keel is firmly held in the grasp of the growing coral. The water was awash over Ballona Shoal when the vessel struck from end to end and side to side, but the whole mass, on which is supported the wreck, has gradually risen out of the ocean, as if by volcanic action.

From the sea the Belle's hull attracts the eye of the passing seaman and causes him to think some strange Crusoe has built for himself an odd-shaped house on the edge of the coral island. The Aldinga's crew did not alone discover that the rising of the Belle's ghost from the sea was the only wonder connected with the queer shipwreck. Though it was March 27th, or nearly two months after the Belle went ashore, four living domestic animals trotted about the dead brig's decks. Three swine were in the vessel's hold, and had fatted upon the potatoes in the cargo, that was piled close to the hatches. The hatch covers had been washed away, exposing the food to the ravages of the hogs. A dog, bony and hungry looking and covered with feathers, was found curled up in the after cabin, where he had laid down to die by slow starvation, life having been kept in his gaunt body since the day he was cruelly deserted by man, his ungrateful companion, by devouring unwary sea birds that perched at night in great numbers along the Belle's bulwarks and railings.

When the seas were grinding the brig on the reef two iron water tanks had upset in such a manner that the several hundred gallons of water that had not spilled out were accessible to the dog and swine alike. Tropical rains often poured down on the wreck, filling its gutters and receptacles full to the brim while the storm lasted. The showers were also life-renewers to the animals. There had been a monkey and several parrots confined in a cage under the break of the poop, but the canine had undoubtedly fought a terrible battle with the simian, vanquishing his foe and then devouring him at his leisure. All that was left of the parrots were a few green feathers. The dog was on board of the Aldinga and the hogs furnished fresh pork for the steamer's men for several days. But, like the soldier who had passed unscarred through many battles only to be killed on his way home in a railroad accident, the Belle's dog lost his life by being crushed by a falling bale of merchandise just before entering Sydney.

Seamen cannot account for the sub-marine upheaval that has lifted the brig high out of water and perched it on a coral foundation like in appearance to Nouri's picture of the ark on Mount Ararat. It must have been caused by an earthquake.

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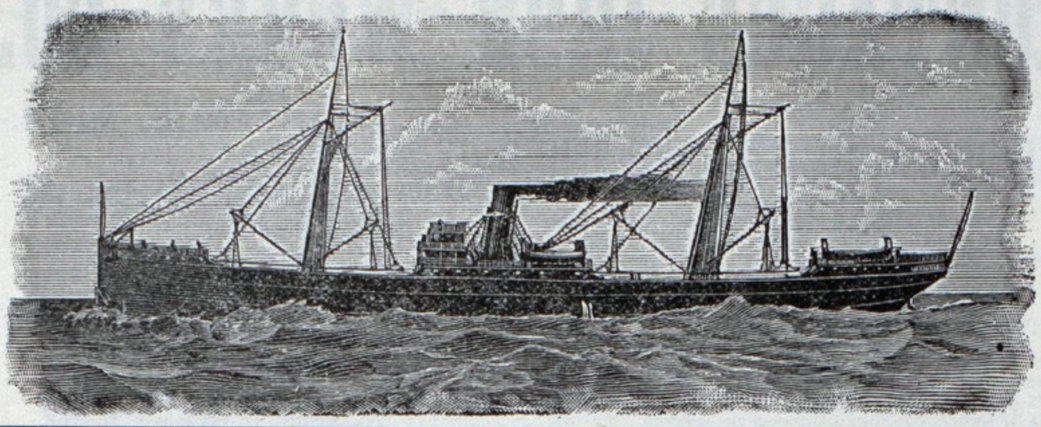

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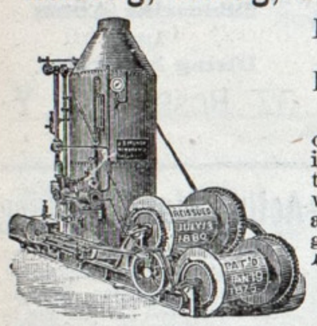

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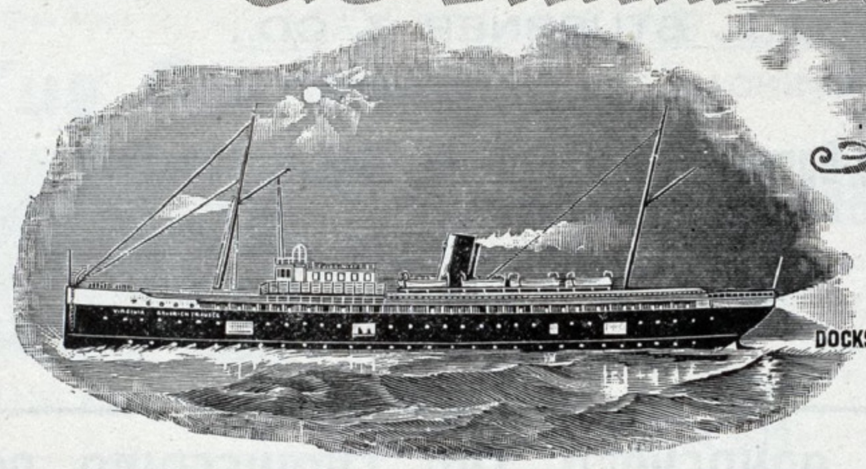

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PROPOSALS.

U. S. ENGINEER OFFICE, Oswego, N. Y., July 7, 1894. Notice is given to all persons interested in wreck of schooner Christina, in Harbor of Sackett's Harbor, N. Y., that if within thirty days from date of this advertisement they shall not have notified this office of their intention and taken preliminary steps to remove said wreck as soon as practicable the wreck will be regarded as abandoned and derelict and will be removed by the United States in accordance with law. Sealed proposals, in triplicate, will be received here until 12 M. Saturday, August 7, 1894, for removal of abovenamed wreck. All information furnished on application. DAN C. KINGMAN, Capt. of Engineers. 27-30

U. S. ENGINEER OFFICE, 34 West Congress St., Detroit, Mich., June 28, 1894. Sealed proposals for Power House and Office Building for the 800-ft. Lock, St. Mary's Falls Canal, will be received here until 2 p. m., July 28, 1894, and then publicly opened. Information furnished on application. O. M. POE, Col. Corps of Engineers. 26-28

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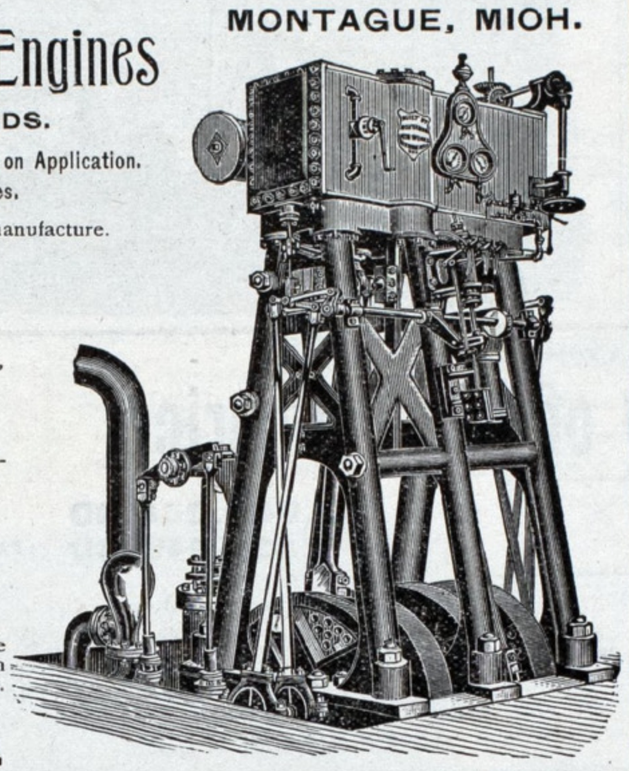

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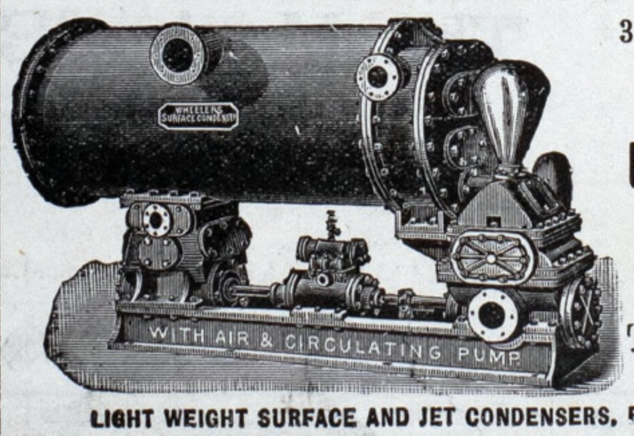

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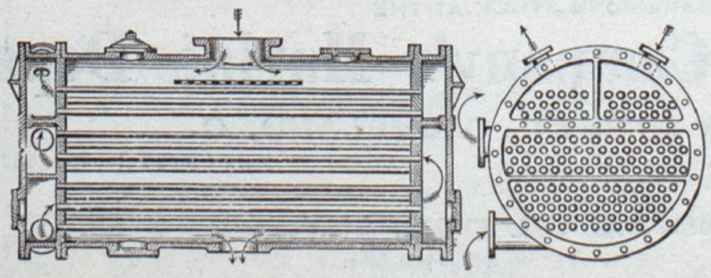

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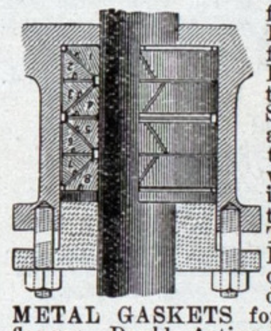

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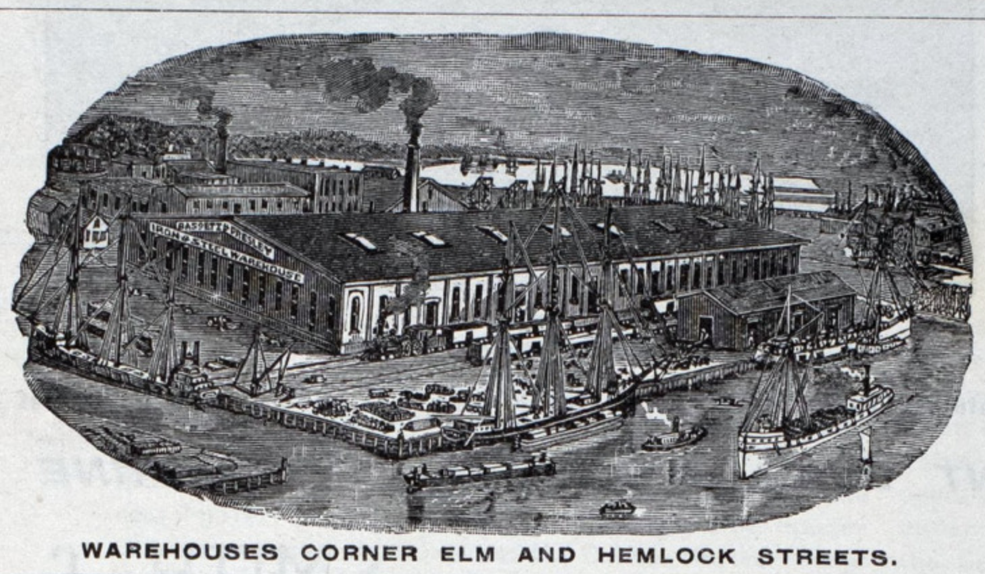

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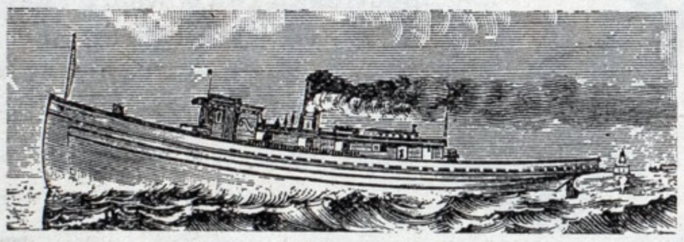

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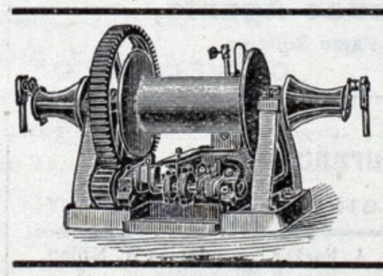

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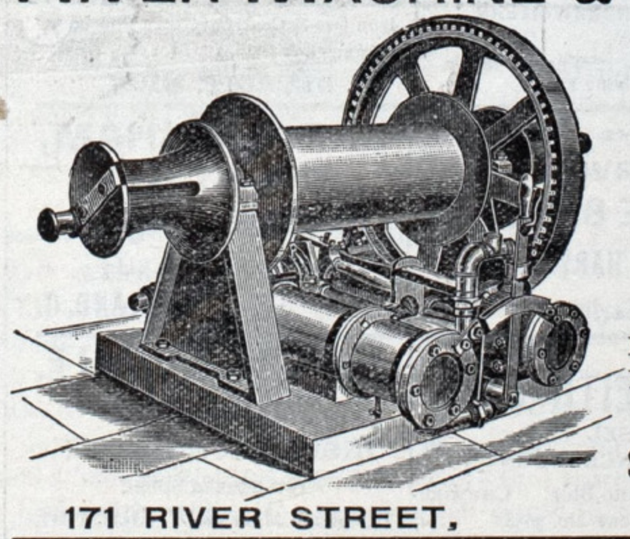

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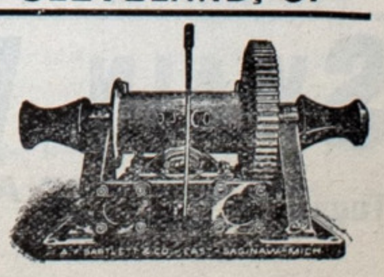

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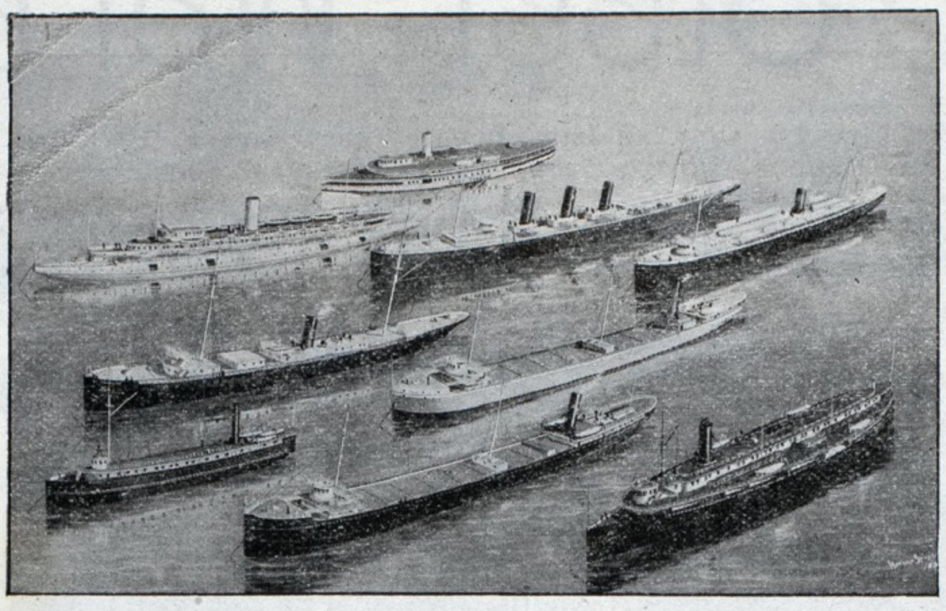

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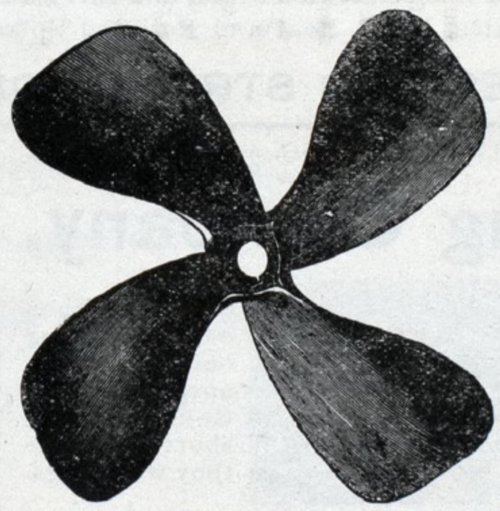

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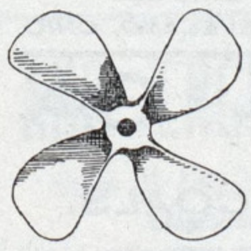

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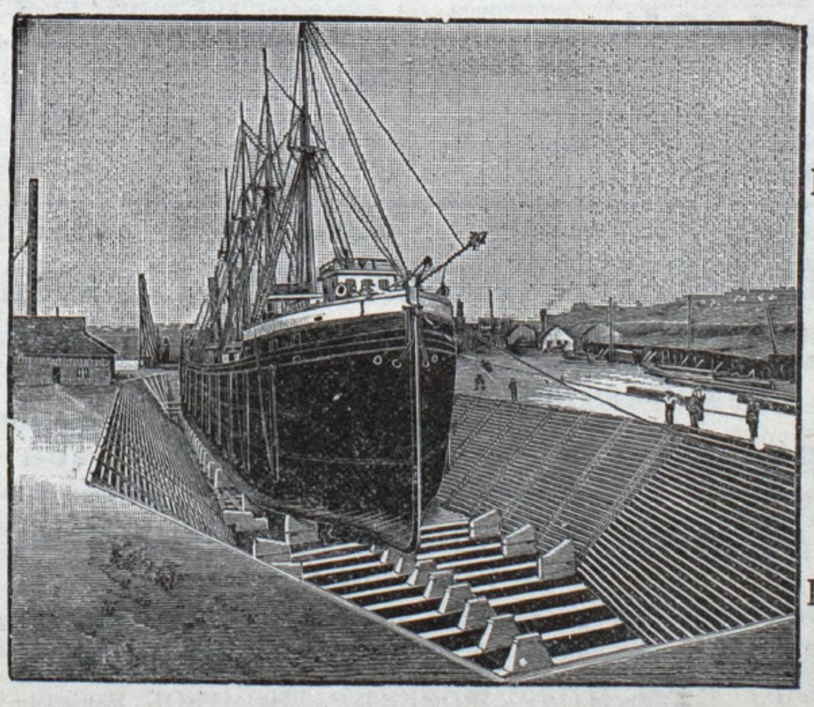

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